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FOREIGN DIRECT INVESTMENT PROMOTION: USING ADVERTISING TO CHANGE ATTITUDES AND BEHAVIORS

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The purpose of this research is to examine how advertising influences managerial perceptions of countries as a place to build, establish, or purchase a business in foreign locations. Principles from John Dunning's OLI theory frame the discussion. Using an online survey method, we exposed managers with investment and real estate selection responsibilities to two advertisements from 15 different countries seeking foreign direct investment (FDI). The results indicate that FDI-seeking advertisements are effective in changing managerial attitudes and behavioral intentions toward the advertising country, even with only one exposure. Specifically, the advertisements that presented strong arguments for market attractiveness or highlighted firm-strategic assets were the most effective in changing managerial attitudes. For changes in behavioral intentions, strong arguments for strategic assets led managers to indicate that they would seek additional information and recommend the country be placed on the firm's list of potential locations for FDI. Findings from this study offer investment promotion managers insights into how FDI advertising affects managerial attitudes and behavioral intentions that can assist a country in being placed into a manager's consideration set. The paper is the first to provide an assessment of FDI advertising effectiveness, and does so using actual site selection managers. This research also successfully applies an international business theory to a study of international advertising content.

INTRODUCTION

The amount of inward foreign direct investment (FDI) in the world amounted to $1.45 trillion in 2013 (World Bank, 2014). Governmental leaders understand that obtaining a share of this FDI represents one of the best ways to spur economic growth. Doing so can include increased tax revenues and employment rates as well as the transfer of foreign technology and know-how to a local market (Harding & Javorcik, 2011). To capture their share, some governments have established investment promotion agencies (IPAs) whose main objective is to attract foreign investors through marketing activities known as FDI promotion (Morisset, 2003).

The size of FDI promotion budgets varies by region and country income levels. Annual budgets range from an average of $550,000 in low-income countries to $9 million for high-income countries (Morissett & Johnson, 2004). Some are as high as $27 million with nearly 38% of the funds allocated to image-based activities. FDI advertising can be quite sophisticated utilizing multiple executions and multi-year, multi-media campaigns (Wilson & Baack, 2012). Sparse research regarding FDI promotion exists, especially of foreign direct investment advertising, which suggests a gap in the literature (Dinnie, 2004; Papadopoulos & Heslop, 2002).

The lack of research in the FDI and advertising literature areas stems from two different but related sources. First, researchers appear to have a greater interest in issues pertaining to the firm, such as understanding the motivations, successes, and characteristics of multinational enterprises engaged in international investments. Consequently, studies focus less on understanding the motivations and characteristics of countries seeking to attract FDI. Second, a few prominent authors in the field of nation branding suggest that FDI advertising is a wasted effort, which likely discourages further investigation. These authors argue that country images are too complex and that FDI advertising constitutes only one component that cannot change investor perceptions by itself (Anholt, 2003, 2005).

The Marketing Management Journal
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Others claim managers are too rational to be influenced by FDI advertising (Papadopoulos & Heslop, 2001).

Our research serves two purposes. First, it seeks to address the gap within the FDI and advertising literatures by studying the perceptual factors that influence country selection (e.g., advertising). Second, this study assesses the efficacy of FDI advertising and addresses claims that such advertising will be ineffective in changing managerial attitudes or behavioral intentions regarding an investment location. To accomplish this, Dunning's (1998) Eclectic Theory or OLI serves as the basis of this investigation. In doing so, this work answers calls for more applications of international business theories to global advertising issues (Taylor, 2010). This study presents actual FDI advertisements to site selection managers using an online survey instrument. Their evaluations provide insights and offer significant theoretical and managerial implications.

LITERATURE REVIEW

FDI Promotion

Many factors affect the selection of a country for foreign investment. One factor, FDI promotion, includes every marketing activity designed to attract the building, establishing, or purchasing of a business in a foreign country (Wells & Wint, 2000). FDI promotion can be categorized into one of four types of activities: image-building, investment-generating, investment-servicing, and policy advocacy (Morisset, 2003; Morisset & Johnson, 2004; Wells & Wint, 2000). Image-building activities attempt to change the perceptions potential investors hold regarding a market and include advertising and public relations activities. Investment-generating activities generate leads within specific industries and companies. Marketing activities include direct mail, telemarketing efforts, and seminars. Investment -servicing activities provide investors with information useful to the decision-making process both pre- and post-site selection, including investment counseling and permit expediting. Policy advocacy takes place when an agency lobbies a government and supports initiatives to improve its country's investment climate.

Research indicates that FDI promotion can help increase investment into a market. Policy advocacy has demonstrated the greatest impact on FDI expenditures, followed by image-building activities (Morisset, 2003). From a more targeted perspective, marketing activities directed toward particular sectors generates twice as much FDI budgets as non-industry-specific marketing efforts (Harding & Javorcik, 2011). Developing nations appear to benefit the most from FDI promotion. Negative investor perceptions such as thoughts pertaining to corruption, bureaucracy, and language barriers plague many developing countries. FDI activities soften the impact of these perceptions (Harding & Javorcik, 2011). FDI promotion effectiveness can be accentuated by an investment promotion agency (IPA) (Harding & Javorcik, 2012).

FDI advertising is a specialized form of FDI promotion, which industry research categorizes as an image-building activity. It can also be used for investment generation. FDI advertising tries to shape country perceptions, add countries to investors' consideration sets, and seeks to provide investors with information (Charlton & Davis, 2007; Papadopoulos & Heslop, 2002; Wells & Wint, 2000). These messages can also announce future investment generating activities such as trade missions or a government's new attitude toward FDI (Johnson, 2006).

One study of FDI advertising included a content analysis of 546 ads appearing in four leading U. S. business magazines over a 55-month period (Wilson & Baack, 2012). Findings indicate that high-income countries advertised more frequently than middle- or low-income nations. Higher-income countries tended to use image-based advertising rather than fact-oriented appeals.

Location Advantages and Site Selection

To better understand the efficacy of FDI advertising, we use the location advantage component of the eclectic or OLI (ownership, location, internationalization) theory (Dunning, 1988; 1998). We focus solely on location

advantages because our unit of analysis is at the country level, and the advantages of countries are better explained by their location characteristics rather than ownership and internalization advantages, which are firm-level variables (Rugman, 2010). From an FDI perspective, countries are the collection of their location advantages. Precedence exists for utilizing only location advantages when discussing country-specific advantages (c.f. Dunning, 1988; Ellram, Tate, & Peterson, 2013) and in analyzing FDI advertising (Wilson & Baack, 2012).

Location advantages play a key role during site selection, as managers match the project's specific requirements with the benefits potential locations offer (MIGA, 2006). FDI advertising influences the earliest parts of site selection, when managers develop the list of potential investment locations. In these circumstances, advertising highlights a location's advantages and places it into one's consideration set (Wells & Wint, 2000). The promoted location advantages can be: resource-seeking, market-seeking, efficiency-seeking, and strategic asset-seeking.

Resource-seeking investments focus on locations with an abundance of physical resources combined with the infrastructure needed to process and transport those resources (Dunning 1998). Market-seeking investments include a large and growing domestic market, the availability and price of skilled or professional labor, proximity to regional markets such as NAFTA and the European Union, and proximity to users in knowledge-intensive sectors. Market-seeking factors also include the quality of the infrastructure and of governmental institutions. Efficiency-seeking investments are made when governments actively remove obstacles to economic activities, where specialized spatial clusters exist, where the presence of competitive and related firms is great, and where firms regularly cooperate in the development of new initiatives. Economies of scale that result from agglomerative markets constitute another efficiency-seeking factor (Nachum, 2000). Strategic asset-seeking takes place when managers select locations based on the availability and price of synergistic assets, the need to tap into the growing geographical dispersion of knowledge-based assets, and the desire to gain access to different cultures, institutions, and consumer demands and preferences (Dunning, 1993; 1998).

HYPOTHESIS DEVELOPMENT

Some academic researchers debate FDI advertising effectiveness. Anholt (2003, 2005) argues that advertising is ineffective because it constitutes one component of the overall effort in managing a country's image and by itself has little meaning. He states that for FDI advertising to be effective, a country's other image-affecting qualities, such as its policies, foreign relations, culture, product reputation, and tourism promotion should be consistent with the advertising message and must be coordinated across all stakeholders. When this does not occur, Anholt (2007) argues the ad may be perceived as insincere, lacking credibility, and possibly as propaganda. Further research suggests that FDI advertising is ineffective because managers are too rational to be influenced by promotional messages (Papadopoulos & Heslop, 2001).

In contrast, we contend that FDI advertising can be effective in influencing managerial perceptions and draw on advertising models to support our views. The essence of the argument between those who insist that FDI advertising can be effective, and those who believe it cannot, may, in part, result from evaluations of attitudinal components. Advertising research offers evidence that advertising content impacts attitudes and behaviors (e.g., Stewart & Furse, 1986). The hierarchy of effects model suggests that advertising can target multiple attitudinal levels. The model contains cognitive, affective, and conative components (Holbrook & Hirschman, 1982; Aurifeille, Clerfeuille, & Quester, 2001; Bagozzi, Tybout, & Sternathal, 1979; Lavidge & Steiner, 1961).

The cognitive attitudinal component includes the processing of an ad's information and sensory elements. Specifically, these elements of attitude change are associated with awareness and knowledge. A consumer, or in this case, a manager, can be enticed by advertising designed to inspire greater interest and subsequent information-seeking behaviors. Knowledge about the country develops through

advertising copy highlighting the location's attributes or benefits.

The affective attitudinal component includes the steps of liking and then preferences as suggested in the hierarchy of effects model. At that moment, the individual targeted by FDI advertising experiences a shift in feelings and emotions resulting in an attitudinal change. An affective shift takes place prior to cognitive stage and before the conative, behavioral stage.

Intentions to purchase and actual purchasing behaviors are in the conative attitudinal component (Park, Stoel, & Lennon, 2008). When preferences for a country are established through the prior affective stage, site selection behavior is possible. Site selection behavior is typically classified into two levels (Kotler, Haider, & Rein, 1993; Wells & Wint, 2000). Lower order behaviors include reading additional materials or contacting the investment promotion agency (IPA). It may include recommending the country be placed on a list of possible locations. Higher order behaviors are the final purchase, or in this case, country selection for foreign investment.

The question then becomes, "Which part of an attitude does FDI advertising seek to influence?" Those who suggest FDI advertising can succeed would logically believe that the messages can target the cognitive (greater knowledge and understanding of a host country) and affective (image-building or "liking" of that country) attitudinal components, which would eventually then change conative or behavioral responses.

Writers claiming that FDI advertising will be ineffective argue that other elements limit the ability to influence the attitudinal components. In Lewin's (1943) terminology, it is not possible to undo and change attitudes toward a company due to an advertising program's limitations, because the cognitive and affective elements cannot be truly influenced by ads. These researchers believe markets are too cluttered with multiple advertisements and managers are too rational and distrustful of the messages for attitudinal shifts to occur.

The importance of location determinants in the site selection process (MIGA, 2006; World Bank, 2009) suggests that when a country effectively presents information in its FDI advertising, the message will change managerial cognitive and affective attitudes regarding that country's location attributes. Doing so may in turn cause managers to act on this information – the conative element of an attitudinal change (Kotler, *et al.*, 1993; Wells & Wint, 2000). To change attitudes, country officials present strong arguments in support of their location's attributes. Message persuasion becomes greatest when arguments contain quantitative information and multiple supporting statements (Artz & Tybout, 1999; Wiener, LaForge, & Goolsby, 1990). Research examining advertising's intermediate effects on attitudinal change suggests that FDI advertising may work in the same manner (e.g., Vakratsas & Ambler, 1999).

Attitude change for the resource-seeking determinant comes from a country's ability to quantify and draw attention to its resources. These include its abundance of natural resources and local partners for knowledge and expense sharing. Firms become interested in setting up subsidiaries in foreign locations when they can acquire specific resources of a higher quality or at a lower real cost than could be obtained in their home country (Dunning & Lundan, 2008).

H_1: Attitude change for the resource-seeking location determinant will be greater when an advertisement's arguments for that determinant are strong.

Attitude change for the market-seeking determinant comes from a greater emphasis on the size and location of the advertising country's market and the growth opportunities that stem from it. Strong arguments are easily quantified through items such as GDP, distance to adjacent markets, or the number of college graduates. An additional emphasis on the presence of skilled labor, quality of its infrastructure, the competence of its institutions, and investment incentives also facilitate attitude change (Dunning & Lundan, 2008). Countries may highlight the abundance of competitive and related firms, which become location-specific advantages attracting foreign entrants hoping to capitalize on imitation

strategies and knowledge transfers that are only possible by having a local presence (Cuervo-Cazurra, *et al.,* 2014).

H_2: Attitude change for the market-seeking location determinant will be greater when an advertisement's arguments for that determinant are strong.

Attitude change for the efficiency-seeking determinant comes from the government's ability to present quantitatively that it has created a business environment where firms can easily operate and generate profits without burdensome or restrictive regulations (Makino, Isobe, & Chan, 2004). Governments try to demonstrate that they possess agglomerative markets in which a density of businesses exists. This helps firms reduce costs by facilitating the exchange of goods and ideas. Agglomerative markets help firms become more competitive by permitting the division of global value chain activities to maximize profitability and innovation (Cuervo-Cazurra, de Holan, & Sanz, 2014).

H_3: Attitude change for the efficiency-seeking location determinant will be greater when an advertisement's arguments for that determinant are strong.

Attitude change for the strategic asset-seeking determinant comes from highlighting the size and scope of location-specific assets held by the government or by firms in the country. Here investment motivations are about cost reductions or market advantages over competitors, rather than a firm's ability to augment a global portfolio of physical assets and human competencies (Dunning & Lundan, 2008). Such assets include technology (Gubbi, Aulakh, Ray, Sarkar, & Chittoor, 2010) and managerial resources (Almeida, 1996) where firms gain access to location-specific-assets through acquisition or an alliance with a local firm (Makino, *et al.,* 2004).

H_4: Attitude change for the strategic asset -seeking location determinant will be greater when an advertisement's arguments for that determinant are strong.

Using the hierarchy of effects model, the previous hypotheses advocate that, through awareness and knowledge, the cognitive stage influences affective attitude change. With affective attitude change, it becomes possible to influence future behaviors, or the conative component. Advertising alone typically only influences lower order behaviors, especially in high involvement or costly purchases, because advertising generates only moderate message acceptance, as it can be perceived to be from a vested interest source (Smith & Swinyard, 1982). Those exposed to advertising may engage in discounting, source derogation, counter-arguing, or message rejection. Advertising can, however, increase awareness, generate interest, and lead to subsequent information-seeking behaviors (Vakratsas & Ambler 1999).

FDI advertising may affect such lower order behaviors, including seeking additional information, contacting the IPA, or recommending the country be placed on a list of possible locations for FDI (Kotler, *et al.*, 1993; Wells & Wint, 2000). A higher order behavior such as selecting a specific country as the final destination for FDI is not likely through FDI advertising alone (Papadopoulos & Heslop, 2002). It typically requires other marketing activities, such as investment exhibitions, investment missions, seminars, and sales presentations. Therefore, we expect that affective attitude change stemming from strong arguments presented in FDI advertising will result in managers initiating lower order behavioral intentions.

H_5: Change in lower order behavioral intentions will be greater when attitude change for each location determinant is greater.

METHODS

We used a subsample of the single-page advertisements content analyzed in the Wilson and Baack (2012) study. Their sample included all ads over a 55-month period from 2007 through 2011. We chose a 12-month period in the beginning of their sampling frame to increase the likelihood that our respondents had not seen, or at least had not recently seen, our target ads. Presenting advertisements from a

limited and district period of time helps to minimize variability in ad design and composition, which is typically influenced by the availability of ad production technology and managerial skill sets. Advertisements were from the four most widely read business magazines in the U.S. in terms of readership as reported by the *Marketer's Guide to Media* (Nielsen Business Media, 2008): *Business Week, Forbes, Fortune* and *The Economist*. An advertisement was identified as FDI-promoting when it promoted a country as a place to build, establish, or purchase a business, and when the primary message provided information to foreign investors about the country or sought to create an attractive image of the country as a place for foreign investment (Wells & Wint, 2000).

To reduce the survey's complexity, increase the homogeneity of the ad sample, and control for items such as ad size (Wang & Chan, 2001) and ad budget (Spears, 2003), only single-page FDI -promoting ads were used (Kassarjian, 1977; Weber, 1990). The sample of 45 advertisements included all single-page and unduplicated FDI-promoting ads from: Belgium (4 executions), Canada (5), China (2), Colombia (1), Egypt (2), France (2), Georgia (3), Ireland (3), Macedonia (2), Portugal (2), Qatar (3), Scotland (4), South Korea (2), Spain (4), and Turkey (6).

Coding Process. The content of each advertisement was coded for 24 items from the four categories of location determinants for FDI as identified by Dunning's (1993, 1998) framework. The strength of the arguments presented for each item used a scale of "1" to "5" with "1" for an item not being present and "5" for an item being strongly represented by advertising arguments. Argument strength was defined as providing multiple supporting statements and/or quantifiable information (Artz & Tybout 1999; Wiener, *et al.*, 1990). Five Ph.D. students completed the content analysis. A two-way random effects model for consistency between judges produced an average measure ICC = 0.986 demonstrating a high reliability (McGraw & Wong, 1996).

Each of the 24 location factors identified by Dunning is represented in some combination within the subsample of 45 FDI advertisements from Wilson and Baack (2012). With the exception of the resource-seeking factor, all items loaded well with regard to each of Dunning's location factors. Cronbach's alphas for the market-seeking, efficiency-seeking, and strategic asset-seeking factors ranged from .66 to .82, which is acceptable for exploratory studies (Nunnally, 1978). The resource-seeking factor did not meet this standard and was removed from further analyses (Cronbach's alpha of .26). See Table 1.

Respondent Sample. The sample was derived from the email distribution lists of two corporate site selection magazines – *Site Selection* and *Area Development Magazine*. An email was sent to the combined distribution list of 18,059 subscribers requesting their participation in the survey, and 474 subscribers indicated their willingness to participate. To ensure the validity of the sample, respondents were qualified to participate in the survey if they indicated involvement in the investment and real estate selection process. IPA managers were discouraged from participating because they are often the originators of FDI advertising. After removing unqualified respondents, the sample was reduced to 305 respondents. A total of 166 of these respondents completed the survey for a 54.4% completion rate (see Table 2 for descriptive statistics of the sample). A reminder email was sent one week after the survey was distributed. To encourage participation, a $100 American Express gift card was awarded to one randomly drawn respondent at the end of the two-week time frame.

To test for the potential of a non-response bias, the pool of respondents was split into early and late responders (Armstrong & Overton, 1977). Independent sample t-tests revealed no difference between the two groups with respect to all six dependent variables (market-seeking attitude change: early 0.31, late 0.39, p=0.66; efficiency-seeking attitude change: early 0.36, late 0.45, p=0.67; strategic asset-seeking attitude change: early 0.23, late 0.44, p=30; seek information: early 0.40, late 0.45, p=0.78; contact IPA: early 0.45, late 0.43, p=0.88; and recommend FDI: early 0.26, late 0.49, p=0.14). Chi-square tests performed on several key respondent characteristics also indicated no difference between early and late responders

TABLE 1:
Content Analysis and Factor Loadings

	Argument Strength†		
Location Determinants for FDI	**Min**	**Max**	**Mean**
Resource-seeking (α = .261)			
Quality of natural resources	1.00	3.40	1.42
Ease in processing or transporting output	1.00	3.40	1.43
Availability of local partners for knowledge sharing	1.00	4.40	2.26
Availability of local partners for capital expense sharing	1.00	3.20	1.40
Market-seeking (α = .661)			
Large and growing domestic market	1.00	3.60	1.60
Adjacent to regional markets	1.00	4.40	2.06
Availability of skilled/professional labor	1.00	4.80	2.61
Price of skilled/professional labor	1.00	3.00	1.27
Presence of competitive/related firms	1.00	4.00	1.78
Quality of local/national infrastructure	1.00	4.00	1.97
Quality of institutional competence	1.00	4.20	2.13
Macroeconomic policies pursued by host government	1.00	4.25	2.39
Promotional activities by regional/local developmental agencies	1.00	2.20	1.49
Proximity to users in knowledge-intensive industries	1.00	5.00	2.32
Efficiency-seeking (α = .674)			
Government restructuring of economic activities	1.00	3.60	1.96
Government involvement in upgrading human resources	1.00	4.40	1.66
Availability of specialized spatial clusters	1.00	4.80	1.85
Opportunities for new initiatives	1.00	3.80	1.90
Strategic Asset-seeking (α = .820)			
Geographic dispersion of knowledge-based assets	1.00	3.60	2.40
Availability of synergistic assets	1.00	3.80	2.60
Price of synergistic assets	1.00	3.00	1.26
Exchange of localized tacit knowledge	1.00	2.60	1.54
Access to different cultures, institutions, and systems	1.00	2.20	1.37
Access to different consumer demands/preferences	1.00	2.20	1.22

† – Items assessed on a scale of 1-5 with 5 representing an item with strong arguments. n=45

(firm type, X^2 (3, 166) = 1.228, p=0.54 and firm size, X^2 (5, 166) = 3.36, p=0.50).

Survey Design. The survey was created using Qualtrics online survey software and was divided into three sections. The first section qualified respondents as involved in the investment and real estate selection process. The second section randomly presented the respondents with two of the FDI advertisements and a control ad. The final section sought demographic information.

Prior to and after an ad's presentation, respondents were asked for their level of agreement with three attitudinal statements about their perception of the country as being appealing due to its market-seeking, efficiency-seeking, and strategic asset-seeking location

TABLE 2:
Descriptive Statistics
of Survey Respondents

Type of Firm	
Corporation	102 (60.0%)
Consultancy	45 (26.5%)
Other	23 (13.5%)
Firm Size	
1-49 employees	63 (37.1%)
50-99 employees	17 (10.0%)
100-499 employees	20 (11.8%)
500-999 employees	12 (7.1%)
1000+ employees	57 (33.5%)
Job Title	
Chairman, President, Partner/Owner	75 (44.1%)
VP, Treasurer, Corporate Officer	25 (14.7%)
Real Estate/Facilities/ Development Mgr	42 (24.7%)
Other Manager	7 (4.1%)
Consultant	12 (7.1%)
Other	9 (5.3%)
Firm Headquarters	
United States	148 (87.1%)
Other	21 (12.9%)

determinants. Prior to and after an ad's presentation, respondents were also asked about behavioral intentions in the sponsoring country as a place for foreign investment. During each presentation, respondents were encouraged to process the ad by answering questions about its execution (i.e., attitude toward the ad, ad creativity, and most prominent feature emphasized in the ad).

The third section of the survey presented the respondent with a control ad for tourism in India. The structure of this section was identical to that of the second section with the exception that all respondents viewed the same control advertisement. The control was used to check for a method bias in how respondents evaluated a country as a place for foreign investment for each of the three location advantages. Considering the before and after ad questions pertained to investment, a tourism ad was deemed to be an appropriate measure of method bias as this type of ad fits as a location advertisement for a country but is not investment-orientated and therefore not in fitting with the attitudinal and behavioral intention questions. A comparison of the before and after ratings for each location factor variable was insignificant, which suggests that no method bias was present in the survey design or in the case of market-seeking, a bias was not present because no positive shifts in attitudes occurred (market: before 4.60, after 4.37, p=0.01; efficiency: before 3.88, after 3.90, p=0.74; and strategic asset: before 4.14, after 4.11, p=0.73).

Operationalization of Variables

Dependent Variables. Changes in attitudes were measured by the respondent's perception of the country corresponding to three of Dunning's location factors (excluding resource-seeking, as noted previously). Changes in behavioral intentions were measured by the respondent's interest in seeking information, contacting the IPA, and recommending the country for FDI. These attitudinal and behavioral intention items were both assessed using a seven-point Likert scale and were asked of the respondent both prior to and after the presentation of the advertisement. To measure the effect of ad exposure, the "before" measures were subtracted from corresponding "after" measures to create three attitudinal and three behavioral intention variables.

Independent Variables. Argument strength is a composite measure created for each of the location factors based upon its representative components according to theory (Dunning, 1993; 1998), as assessed during the content analysis (See Table 1). The Cronbach's alphas for these composite measures were reported previously.

Control Variables. Attitudes toward the advertisement (MacKenzie & Lutz, 1989) were measured using a four-item measure on seven-point bipolar semantic differential scales (i.e., bad/good, unfavorable/favorable, unpleasant/ pleasant, and not likeable/likeable; Cronbach's alpha of .953).

Respondent's familiarity with the country of interest, which was adapted from Yang, *et al.* (2008), was measured using a four-item measure on seven-point Likert scale (unfamiliar / familiar) by asking each respondent for their familiarity with the country's products, the country as a place for tourism, the country as a place for doing business, and the country as a place for foreign investment (Cronbach's alpha of .924).

Country classification was measured by grouping countries into the World Bank's income categories classification scheme from 2011 (Narula & Dunning, 2000; World Bank, 2011). The sample consists of six middle-income countries (China, Colombia, Egypt, Georgia, Macedonia, and Turkey) coded as "0" and nine high-income countries (Belgium, Canada, France, Ireland, Portugal, Qatar, Scotland, South Korea, and Spain) coded as "1."

Data Analysis. Two sets of regressions were run – one set to assess changes in attitudes and the other to assess changes in behavioral intentions. The Pearson correlation matrix indicated that all correlations between variables were low to moderate, which suggests the absence of multicollinearity (see Table 3). Further, the variance inflation factors (VIFs) of all variables were less than 2 (Hair *et al*., 2005). Variable means and standard deviations are reported in Table 3.

Results

The first set of regression analyses for change in attitudes revealed that all models were significant with the market- and efficiency-seeking models significant at $p < .001$ level and strategic asset-seeking at $p < .01$ (see Table 4). Effect sizes (adjusted R^2) are moderate (Cohen, 1988).

The first set of hypotheses received mixed support. As noted, the resource-seeking factor (hypothesis 1) could not be tested due to its low Cronbach's alpha, and the efficiency-seeking factor was not supported (hypothesis 3; $p = .25$). Regression results do, however, provide support for the market-seeking (hypothesis 2) and strategic asset-seeking factors (hypothesis 4; $p < .05$).

With respect to the control variables, attitude toward the ad demonstrated a significant effect in the market-seeking, efficiency-seeking, and strategic asset-seeking models ($p < .001$). Advertisements that are well-liked were more likely to shift managerial attitudes. In this instance, the movements would be toward believing the advertised country was an attractive market, an easy place to do business, or possessed strategic assets. Country familiarity is also significant but only for the efficiency-seeking model. Due to its negative relationship with changes in managerial attitudes for efficiency-seeking, less familiar countries are more likely to experience favorable shifts in attitudes. In other words, viewing the ad for an unfamiliar country can change attitudes regarding the expected level of ease In doing business within the country.

The next set of regressions examined the effect of attitude change on shifting behavioral intentions. The regression analyses indicate that all models were significant at the level of $p < .001$ (see Table 5). Effect sizes (adjusted R^2) are moderate or typical (Cohen, 1988).
Insert Table 5 about here

Tests of the fifth hypothesis yielded mixed support. Managers indicated a desire to seek additional information when attitude change was greater for the strategic asset-seeking factor ($p < .01$) but not for the market-seeking ($p = .24$) and efficiency-seeking ($p = .55$) factors. Managers did not indicate a stronger desire to contact the IPA after viewing the ad when attitude change was greater for the market-seeking factor ($p = .52$); however, the efficiency-seeking ($p = .06$), and strategic asset-seeking ($p = .06$) factors approached significance. Managers indicated a desire to make a recommendation when attitude change was greater for the strategic asset-seeking factor ($p < .01$). It was not significant for the market-seeking factor ($p = .46$), but it approached significance for the efficiency-seeking factor ($p=.09$).

For the control variables, attitudes toward the advertisement were significant for contacting

TABLE 3:
Pearson Correlation Matrix For Study Variables

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Changes in Managerial Attitudes (Market)	.36	1.19	1											
2. Changes in Managerial Attitudes (Efficiency)	.41	1.30	.548**	1										
3. Changes in Managerial Attitudes (Strategic Asset)	.34	1.25	.519**	.457**	1									
4. Changes in Managerial Behavior (Info -seeking)	.43	1.05	.310**	.287**	.381**	1								
5. Changes in Managerial Behavior (Contact IPA)	.44	1.18	.281**	.339**	.320**	.656**	1							
6. Changes in Managerial Behavior (Recommend)	.39	1.03	.281**	.308**	.350**	.554**	.699**	1						
7. Argument Strength (Market)	1.94	.45	.164*	.161*	.252**	.167*	0.138	0.101	1					
8. Argument Strength (Efficiency)	1.85	.59	0.002	0.061	0.108	0.01	-0.063	0.004	.595**	1				
9. Argument Strength (Strategic Asset)	1.71	.44	0.062	0.006	.175*	0.113	0.064	0.084	.664**	.577**	1			
10. Attitude toward the Ad	4.74	1.45	.283**	.345**	.280**	.203**	.249**	0.135	-0.023	0.031	-0.054	1		
11. Country Familiarity	3.30	1.64	-0.045	-.162*	-0.003	-0.107	-0.065	-0.024	0.018	.206**	0.132	0.034	1	
12. Country Income Classification	.69	.47	-0.006	-0.047	-0.022	-0.121	-.222**	-0.126	-.398**	-0.03	-0.152	0.113	.234**	1

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

TABLE 4:
Regression Results for Changes in Managerial Attitudes

	Changes in Managerial Attitudes		
(n=166)	Market-Seeking	Efficiency-Seeking	Strategic Asset-Seeking
	Std. Beta[1]	Std. Beta[1]	Std. Beta[1]
Argument Strength – Market-seeking	.195*		
Argument Strength – Efficiency-seeking		.087	
Argument Strength – Strategic Asset-seeking			.192*
A_{AD}	.284***	.353***	.294***
Country Familiarity	-.072	-.182*	-.034
Country Income Classification	.056	-.042	-.018
Adj. R^2	.093	.138	.094
df	(4, 161)	(4, 161)	(4, 161)
F	5.251**	7.582***	5.297***

1 – Standardized beta coefficients.
* p<0.05, ** p<0.01, *** p<0.001

TABLE 5:
Regression Results for Changes in Managerial Behavior

(n=166)	Info-seeking	Contact Agency	Recommend
	Std. Beta[1]	Std. Beta[1]	Std. Beta[1]
Attitude Change – Market-seeking	.109	.059	.069
Attitude Change – Efficiency-seeking	.055	.170†	.159†
Attitude Change – Strategic Asset-seeking	.271**	.163†	.238**
A_{AD}	.091	.154*	.006
Country Familiarity	-.071	.015	.034
Country Income Classification	.109	-.231**	-.122
Adj. R^2	.161	.185	.136
df	(6, 159)	(6, 159)	(6, 159)
F	6.290***	7.253***	5.313***

1 – Standardized beta coefficients.
† – Directionally supportive and worthy of continued and further investigation (p≤0.1).
* p<0.05, ** p<0.01, *** p<0.001

the IPA ($p < .05$) indicating that well-liked advertisements were able to influence behavioral intentions. Country classification was only significant for contacting the IPA ($p < .01$), which suggests that advertising for middle-income countries may be more influential in persuading managers to contact investment promotion agencies than advertising for high-income countries, which is consistent with results from Harding and Javorcik (2011).

DISCUSSION

The view that FDI advertising is insincere or as propaganda (Anholt, 2007) or something that managers are too rational to be influenced by (Papadopoulos & Heslop, 2001) suggests that FDI advertising is ineffective. However, this study finds that FDI advertising can be effective in influencing behavioral intentions and may be better at changing attitudes. Such results were present after one exposure. This may be good news for IPAs spending nearly 38% of budgets on advertising and image-building activities (Morisett & Andrews-Johnson, 2004).

Perhaps our most important finding is that advertisements containing strong arguments for country attributes, as grouped by Dunning's (1998) location factors, exhibited the ability to change managerial attitudes. In other words, the cognitive processing of an advertisement's information influenced the affective attitudes formed by the respondents. Specifically, strong arguments can be made that the market-seeking and strategic asset-seeking factors exhibit the most persuasive power. Advertisements emphasizing the attractiveness of a market or highlighting firm-strategic assets were the most effective.

Arguments for the efficiency-seeking factor do not appear to influence managerial attitudes. Rather, the level of familiarity with the advertising country appeared to play a role when this factor is analyzed. Respondents were more likely to perceive the advertising country as an efficient place to conduct business if the country was less familiar. Apparently, beliefs about less familiar countries are more open to persuasion because knowledge structures are weak or non-existent (Petty & Cacioppo, 1983). When people are exposed to an unfamiliar brand (or in this case, country), they become likely to engage in a brand-learning processing goal (Hilton & Darley, 1991). The deeper level of message processing associated with brand learning is likely to shift attitudes and develop new brand associations (Carrillat, Lafferty, & Harris, 2005; MacKenzie & Spreng, 1992). In contrast, familiar brands are less likely to promote processing of new information in the ad because viewers devote more cognitive capacity to confirming existing knowledge rather than evaluating message claims. Consequently, attitude shifts will be less varied for familiar brands (Fazio, 1986).

The country familiarity effect was only evident for the efficiency-seeking factor and not for the market-seeking or strategic asset-seeking factors. These differences may stem from fundamental dissimilarities between the factors. Market and strategic assets are observable, whereas efficiency is arguably more directly influenced by acts of the government. With the government sponsoring the ad, source credibility and bias issues become more likely to develop. Therefore any arguments for efficiency, whether strong or weak, may likely be viewed as propaganda and subsequently ignored. Despite this, attitudes toward efficiency may improve for unfamiliar countries from the learning that occurs simply by being exposed to the advertisement.

This study suggests that attitudes toward an advertisement greatly influenced managerial attitudes toward all three of Dunning's location factors. Having a well-liked advertisement may be more important than presenting compelling arguments and relevant information content. Indeed, attitude regarding the ad featured the largest standardized beta coefficient in each model, which suggests its superiority in shifting attitudes toward the advertised country. This result is quite intriguing considering the prevailing practice in business-to-business advertising, which has traditionally focused on rationality with an emphasis on factual, functional, benefit-laden messages (c.f., Wilson, 2000). While FDI advertising is more of a government-to-business communication process, the business target remains the same. Certainly an important function of FDI advertising is to raise awareness and present

hard-to-find country information to managers, but it would also seem that advertisements should also be viewed as appealing and likeable.

With respect to conative elements of the hierarchy of effects model, the affective responses developed from viewing FDI advertising had a less pronounced effect in changing behavioral intentions. The only Dunning location factor to have an impact was strategic assets. Changes in attitudes for strategic assets led site selection managers to indicate that they would seek information and recommend the country be placed on the firm's potential list of FDI candidates. Apparently, believing a country possesses strategic assets is the most important of location factor in convincing managers to act on ad information. Therefore, mentioning the opportunity for local partnerships, the exchange of tacit knowledge, and the access to different cultures and consumer preferences in an advertisement may be more persuasive. Dunning's other location factors had no persuasive impact on behavioral intentions, but the efficiency-seeking variable approached significance and may be worthy of continued and further investigation.

Finally, an additional observation is that advertising from middle-income countries was more likely to persuade managers to contact the advertising country's investment promotion agency. This is consistent with past FDI promotion research (Harding & Javorcik, 2011). FDI advertising appears to minimize the negative perceptions that many managers hold about lower income countries. As such, middle-income countries may find it more beneficial to allocate a larger portion of their FDI promotions budget to advertising.

CONCLUSION

The present study offers several theoretical and managerial implications. From a theoretical perspective, the use of Dunning's framework offers a unique approach to understanding FDI promotion. Three of the four location factors have successfully been linked to shifts in managerial attitudes and behavioral intentions. It appears that site selection managers are influenced by ad content, attitudes toward an ad, and familiarity with a country (brand), which suggests that managers are not simply rational processors of advertising but may also be influenced by affect and emotion. Finally, this research potentially adds qualitatively and quantitatively to an under-researched topic within the FDI literature and provides additional evidence that FDI advertising can be effective. The study is one of only a handful on this topic and is the first to include managerial reactions to FDI advertising.

From a managerial perspective, Dunning's location factors are important when studying the perceptions site selection managers hold for their respective countries as places for investments. Doing so permits agency managers to easily identify country attributes that are believed to be in need of realignment or reinforcement to achieve the country's investment targets. It also aids the development of an advertising campaign built around strong arguments in ad copy, which this research suggests as critical in changing attitudes. However, strong arguments appear not to be the only path to changes in attitudes and behavioral intentions. Preparing a well-liked advertisement also holds importance. Considering the cost associated with media placement and the large budgets allocated to image-building tasks such as advertising, it appears prudent to ensure that the ad informs and will also be well-liked.

Limitations and Future Research

Future research may consider assessing the effectiveness of advertising formats other than single-page ads, such as advertorials or ads appearing in highly targeted business publications that focus on a particular industry. A limitation of our work is that Dunning's resource-seeking location factor was not included in our final model due to the low Cronbach's alpha yielded by the content analysis. Therefore, it was not possible to determine its effect, if any, on the attitudinal and behavioral intention measures. In spite of this limitation, its effect may be small due to prior research suggesting that firms today are more interested in Dunning's other location factors (Dunning, 1993; Loewendahl, 2001; Narula & Dunning, 2000; Porter, 2000).

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GENDER AND MOBILE ACCESS METHOD DIFFERENCES OF MILLENNIALS IN SOCIAL MEDIA EVALUATION AND USAGE: AN EMPIRICAL TEST

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Social media sites have emerged as important communication channels available to firms to reach out and engage with Millennial users. This research study investigated how these Millennial users assessed their experience by testing for gender and mobile access method differences in their evaluation and usage of three types of social media. MANOVA analysis results show significant gender differences in the evaluation of social media sites with females consistently showing higher social media site satisfaction and loyalty than males. In addition, the study found significant differences in social media satisfaction and usage of Twitter and Facebook depending on the mobile access method. Managerial implications and future research directions are discussed.

INTRODUCTION

Social media plays increasingly important roles in marketing communication and customer relationship management as it binds various organizational efforts to reach and engage with individuals (Judson, Devasagayam, & Buff, 2012). The use of online social media sites by firms has grown dramatically as the firms provide product, service, and brand information on these sites (Hanna, Rohm, & Crittenden, 2011). These social media sites have evolved from being a tool solely to facilitate information sharing to being an interactive social tool for communication and collaboration as well as for information and knowledge sharing (Bodendorf & Kaiser, 2009; Singh, Hansen, & Podolny, 2010).

Firms are incorporating social media as a key component in their marketing tactics (Inks, Schetzsle, & Avila, 2012; Kaplan, 2012). In addition, firms are promoting their social media sites to their current and potential customers as a critical part of their product and brand strategy. These social media sites have become important interactive virtual communities where customers can share experiences, information, opinions, preferences, and product reviews (Trusov, Bucklin, & Pauwels, 2009).

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Firms' online social media sites, then, provide an interactive market space where geographically-dispersed individuals can engage with each other as an interactive virtual community to share common experience, interests, and content about the firms' products, brands, and services. These online social media sites provide individuals with various tools and functionalities to develop virtual social ties or connections with other customers (Boyd & Ellison, 2008; Trusov, Bodapati, & Bucklin, 2010). Firms are utilizing social media applications for brand and customer relationship management by building brand communities and promoting brand tribalism (Taute & Sierra, 2014). Social media sites are providing numerous opportunities for firms and customers to interact with each other (Wilcox & Kim, 2012). As a result, the firms' social media sites can change the very nature of marketing communication by providing new opportunities for firms to reach out to potential and existing customers.

Social media marketing strategies are being designed to encourage or draw prospects and customers to repeatedly visit the firms' social media sites and to become active participants thus, hopefully, remaining loyal to the firm and its brands. To encourage active participation, firms need to provide prospects and customers with the means and tools to facilitate interactions among peers and to make their social media sites of a sufficiently high quality

as perceived by the individuals (Lin, 2007). Many firms are recognizing the importance of incorporating the various social media applications and tools as integral components in their marketing communication strategy. Through various social media sites, firms are utilizing diverse forms of communication including short message service (SMS) and mobile advertising services that are characterized by being contemporary and hip in nature for their target audiences to increase communication effectiveness (Sierra, Heiser, & Torres, 2012). Previous research studies show that Millennials differ significantly from other user groups in embracing new interactive media such as social networking sites, SMS, and mobile services (Bolton, Parasuraman, Hoefnagels, Migchels, Kabadayi, Gruber, Loureiro, & Solnet, 2013; Dunne, Lawlor, & Rowley, 2010; Kilian, Hennigs, & Langner, 2012) and their usage of interactive media (Moore, 2012). Consequently, firms are developing social media marketing programs to manage their online marketing communications to Millennials through social media sites.

Although there has been significant development in the social media marketing field recently, it is not well understood how Millennial users evaluate and use various types of social media. In developing a targeted social media marketing strategy, it is important to understand user differences in social media evaluation and usage. Understanding user differences in social media usage can help firms develop a customized social media strategy for their targeted user groups especially Millennials. Among various user differences that can influence social media evaluation and usage, understanding the impact of personal traits and behavioral factors such as gender and access method is critical in developing a social media marketing and communication strategy. It is important for marketing managers and firms to assess gender differences in social media evaluation and usage of various types of social media. In addition, it is not clear how the increased usage of mobile devices, such as smartphones, influence the users' evaluation of social media and its usage. With the increased use of mobile devices accessing social media sites, firms are redesigning their social media sites to make them mobile-device friendly, responsive, personalized, and easy to access using those mobile devices. Firms need to understand how the use of mobile devices would influence their prospects and customers' evaluation and usage of social media sites.

Therefore, the purpose of this research is to provide insights into the mechanism affecting the evaluation and usage of social media sites and to examine how gender and mobile access method of the Millennial users influence evaluation and usage of social media sites. Specifically, this research tests gender and mobile access method differences of the Millennial users' social media evaluation and usage of the three types of social media.

SOCIAL MEDIA USER BEHAVIOR

The firm's various social media sites provide opportunities for prospects and customers to participate online and then to interact and engage with other individuals and the firm. During this interaction and participation, the users evaluate the social media sites potentially leading to continued usage of that particular social media site. The next section identifies and discusses evaluation and usage factors as a response to the firm's social media sites. These evaluation and usage factors are selected for inclusion due to their relevance to the adoption and continued usage of social media.

Social Media Evaluation

Security. In engaging with other customers and sharing information with other participants, users consider security settings of social media sites as an important determinant of usage (Chang & Chen, 2009; Seock & Chen-Yu, 2007). Firms can create trust and secure feelings for the users through the use of safety mechanism on the firm's social media sites (Gefen, Karahanna, & Straub, 2003; Lim, Lim, & Heinrichs, 2005; Sinclaire, Simeon, & Wilkes, 2010; Wang, Beatty, & Foxx, 2004). In addition, infrastructural components like third-party certificates, can influence trust and thus influence the perception of security (Lee & Turban, 2001). The security control features can have significant impact on the acceptance and usage of the social media site. Social media sites perceived as secure may provide users with an increased level of confidence thereby leading to increased usage of the social

media sites (Grewal & Levy, 2007; Wakefield & Whitten, 2006).

Social Media Satisfaction. Product satisfaction is influenced by meeting or exceeding consumer's expectation of product and service quality. Further, product satisfaction is positively related to consumer purchase intention and repurchase behavior (Butcher, Sparks, & O'Callaghan, 2002; Gountas & Gountas, 2007; Hellier, Geursen, Carr, & Rickard, 2003; See-To & Ho, 2014; Zboja & Voorhees, 2006). Satisfied customers are more likely to repurchase and customer satisfaction has been shown to have an effect on the performance of a firm (Bernhardt, Donthu, & Kennett, 2000). Social media satisfaction can be considered as whether expected requirements or performance is being met by social media sites. By using the theory of confirmation/disconfirmation (Oliver, 1999), the firm can determine if satisfaction can be achieved when the individual's expectations are met or confirmed. These findings suggest that expectation disconfirmation can be extended to satisfaction and usage behavior of social media sites (Bhattacherjee, 2001; Liao, Chen & Yen, 2007).

Social Media Loyalty. Loyalty can be viewed as the extent to which the user would like to revisit the social media site (Lin & Lu, 2000) as the firm's long-term success is dependent upon loyalty (Kaplan, 2012). Most potential users are more likely to base their loyalty on perceptions thus integrating their personal sense of image of the firm and opinions from the firm's social media sites (Lu, Yao, & Yu, 2005).

Social Media Usage

The number and availability of social media sites and tools have grown to include many online activities such as blogging, chatting, instant messaging, gaming, and webcasting (Boyd & Ellison, 2008). Three prominent social media sites currently available to individuals to share content and comments are Twitter, Facebook, and YouTube. Twitter provides a web-based service that enable users to send 140-character short messages, or to engage in micro-blogging (Twitter, 2010). Facebook, as the most commonly used online social media tool among adults, allows users to create a profile that they use to interact with other users (Lenhart, Purcell, Smith, & Zickuhr, 2010). YouTube allows users to discover, watch, and share user-generated videos. YouTube provides a distribution platform where users can share user-generated content videos and socialize with other users through social networking.

Gender Difference

The gender difference in the use of computers and e-commerce has been well documented in the literature (Colley & Maltby, 2008). As gender differences are embedded in the social interactions in a given culture, culture and social script theory can provide the theoretical backdrop for gender differences in social media evaluation and usage. Social script theory explains how social constructs such as self-concept, social roles, and social relationships influence socially mediated meaningful activities (St. Clair, Thomé-Williams, & Su, 2005). Previous research indicates that females are less satisfied than males with their online experience and females value the utility of online shopping less than males (Rodgers & Harris, 2003). It is expected that females would be less satisfied with their experience of social media sites than males. In evaluating the content and mode of presentation in social media sites, social constructs such as self-identity and social roles can influence the users social media site evaluation and attitude toward other users (Erasmus, Bishoff, & Rousseau, 2002). The ability of the firm's social media sites to invoke curiosity and interest and then to stimulate further viewing was the strongest factor affecting females whereas variety of products and services was the strongest factor for males (Lee & Kozar, 2009; Ozdemir & Kilic, 2011). Social media can provide value to users by satisfying their personal, functional, and social needs (Dunne, et al., 2010). Males and females are using social media for different reasons to satisfy their unique needs. For example, females tend to use social media more to communicate with friends while males may use social media more for product purchases or to voice opinions. Males tend to be more prone to satisfying information attainment and convenience seeking needs compared to females who tend to be more prone to satisfying

uniqueness, assortment seeking, social interaction, and browsing needs (Noble, Griffith, & Adjei, 2006). This can be partially explained by experiential consumption theory that claims that experiential value of social media can be created by consumption experience and provide opportunities for social interaction valued by consumers (Chen & Granitz, 2012; Gainer, 1995; Gentile, Spiller, & Noci, 2007). Thus, it is expected that males would have greater satisfaction, loyalty, and usage for social media sites that offer information and convenience, while females would have greater satisfaction, loyalty and usage for those sites offering social interaction and variety. Further, females tend to show greater risk aversion and less trust in the use of the internet (Sanchez-Franco, Ramos, & Velicia, 2009). Also, males value their ability to post content online, whereas females value responsiveness (Awad & Ragowsky, 2008; See-To & Ho, 2014).

These findings suggest that females put more importance on social media security and trust and use social media sites that offer responsiveness more than males. Males consider social media site security less important and use social media sites that allow content posting more frequently. Females would be sensitive to social media site security and less satisfied with social media usage experience leading to lower intention of using the social media sites. Males would be less sensitive to social media site security and more satisfied with social media sites. Therefore, similar gender differences are expected for the usage of various social media sites that have diverse user interfaces and characteristics. For example, females are more likely to use social media sites, such as Facebook, that promote interaction and socialization than males. Extrapolating these findings, the following hypotheses are presented.

H_1: The users' social media evaluation: (a) perceived security, (b) satisfaction, and (c) loyalty will be higher for females than for males.

H_2: The usage of (a) Twitter, (b) Facebook, and (c) YouTube social media sites will be higher for females than for males.

Mobile Access Method Difference

Mobile devices, that is any tool that permits an individual to access a ubiquitous network beyond one specific access gate (Kaplan, 2012), are increasingly used by individuals to access various social media sites. The usage of the mobile access method can potentially have an impact on the evaluation and usage of the various social media sites (Wakefield & Whitten, 2006). As firms adapt their applications, tools, and websites for mobile access by individuals using tools and technologies such as smartphones or iPads, the value and use of the mobile access method increases substantially (Wang, Lo, & Fang, 2008).

Mobile devices such as iPads, smartphones, kindles, and tablets are becoming both pleasure -oriented and functional-oriented communication devices and are adopted more extensively by Millennial users (Lee, Goh, & Chua, 2010; Moore, 2012). When users access social media sites using mobile devices, their evaluation of social media sites is mainly determined by convenience, immediate access, and responsive interactivity. As a result, security, satisfaction, and loyalty of social media sites are evaluated in a different manner than when using non-mobile devices. In addition, social media sites such as Twitter and Facebook are more likely to be accessed by mobile device users than social media sites like YouTube. Social media sites are accommodating mobile applications as mobile devices have moved to the center of how people are communicating and sharing information with their friends through social media sites (Lipsman, 2010). While these social media sites are being designed to offer the best mobile usage experience, it is expected that those users who access social media sites with mobile devices will have different evaluation and usage patterns of various social media sites when compared to those who access social media sites with non-mobile devices such as desktops, laptops, or notebooks (Woolley & Peterson, 2012). Therefore, the following hypotheses are presented.

H_3: The users' social media evaluation: (a) perceived security, (b) satisfaction, and (c) loyalty will be

higher for the high mobile access usage group than for the low mobile access method usage group.

H_4: The usage of (a) Twitter, (b) Facebook, and (c) YouTube social media sites will be higher for the high mobile access usage group than for the low mobile access method usage group.

METHODOLOGY

Subjects and Procedures

This study used a self-administered questionnaire method to obtain data for analysis. A total of 154 questionnaires were completed by business school juniors and seniors from a Midwest university. The data collection was completed in groups of 30 to 60 participants in a classroom setting. Neither monetary nor non-monetary incentives were given to the participants. The data collection began by providing the participants with an overview of the study. Then the participants received a copy of the questionnaire. The participants were asked to answer all the questions on the survey carefully. The completed surveys were then collected.

Construct Measures

The instrument employed in this study contained question items measuring security, social media satisfaction, loyalty, and social media usage. The respondents were asked to consider social media sites such as Facebook, Twitter, and YouTube. In addition, demographics items are included in this study. Security was measured by using a four-item, five-point Likert-type scale adapted from Lim, et al. (2005). Respondents were asked to indicate their feelings regarding the security of the social media sites. The items are, "the social media sites give me the feeling of: confidence, security, protection, and safety." Social media satisfaction was measured by a three-item itemized rating scale capturing the level of satisfaction with the social media usage experience, social media meeting expectations, and the likelihood of recommending social media use to friends and relatives. These social media satisfaction items were adapted from research conducted by Song and Zinkan (2008). Social media loyalty was captured by a two-item scale measuring whether to say positive things about the site and encourage others to do business with the site. These items were adapted from Zeithaml, Berry, and Parasuraman (1996). Social media usage was captured by the frequency of usage of the three social media sites, Twitter, Facebook, and YouTube, using items adapted from Ryan and Xenos (2011).

To determine the degree of mobile access to various social media sites, respondents were asked to indicate their usage of mobile devices such as smartphones to access various social media sites (Facebook, Twitter, and YouTube) using a five point scale ranging from not at all (1) to quite frequently (5). Those respondents indicating no use or rarely use of mobile devices to access social media sites are classified into the low mobile access method group and those indicating frequent to always use of mobile devices are classified into the high mobile access method group.

ANALYSIS AND RESULTS

Confirmatory Factor Analysis

The measurement properties of users' perceived security, social media satisfaction, and loyalty were assessed in a confirmatory factor analysis (CFA). The fit indices showed fairly good fit of the model to the data ($c^2 = 29.59$ with 24 d.f., Normed Fit Index (NFI) = 0.97, Comparative Fit Index (CFI) = 0.99, Root Mean Square Residual (RMSR) = 0.033).

All the items loaded significantly on the expected constructs indicating convergent validity of the measures. Composite reliabilities were calculated for the three constructs. The composite reliabilities were 0.94, 0.81, and 0.79 for the perceived security, social media satisfaction, and loyalty respectively. The discriminant validity was tested with the procedure suggested by Anderson (1987) and Bagozzi and Phillips (1982). The average variance extracted (AVE) were 0.79, 0.59, and 0.65 for the perceived security, social media satisfaction, and loyalty respectively. The average variance extracted for each construct was higher than the

corresponding shared variance for all possible pairs of constructs. The chi-square difference tests were performed for all possible pairs of constructs. The correlations between constructs ranged from 0.18 to 0.44. In all pairs of constructs, the critical value was exceeded indicating discriminant validity.

As this study collected data from a single informant using the same survey instrument, the Harman's single factor test was performed to evaluate the presence of common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). If method variance is largely responsible for the covariation among the measures, a confirmatory factor analysis should indicate that a single factor fits the data. A one factor model did not fit well (c^2 = 284.40 with 27 d.f., GFI = 0.69, NFI = 0.71, RMSR = 0.19). Thus, these results indicate that there is no strong common method bias present in the data.

Table 1 presents the cell means for the social media evaluation and usage measures for the gender and mobile access method groups. The mean values for the three evaluation measures ranged from 2.26 to 3.94. The mean values for the three usage measures ranged from 1.10 to 4.41.

MANOVA Tests

Analysis was performed using the two-way full factorial MANOVA procedure with gender and mobile access method usage group as the independent factors. Two separate MANOVA analyses were performed for the three evaluation dimension measures and the three usage measures. The MANOVA tests were used to evaluate the differences in perceptions between males and females and between the low and high mobile access method user groups. For the significant MANOVA results of the social media evaluation and social media usage, univariate analysis results were evaluated to determine which dimensions of social media evaluations and which types of social media usage contributed to the significant MANOVA results.

Table 2 shows the results for the two-way MANOVA analysis for the three social media evaluation dimensions. MANOVA analysis was performed for the three social media evaluation measures using gender and mobile access method usage group as the independent factors. Multivariate tests of significance using Wilks' lambda was reported in Table 2a. Gender main effect was significant at the 0.05 level and the two-way interaction effect was significant at the 0.05 level. The mobile access method main effect is not significant at the 0.05 level. Table 2b shows the univariate analysis results. Figure 1A shows cell means of perceived security, satisfaction, and loyalty for males and females on the y-axis and the low and high mobile access method groups on the x -axis. Perceived security shows a significant gender by mobile access method group interaction effect at the 0.05 level. As the

TABLE 1:
Cell Means for Gender and Two Mobile Access Method Groups (MAMG)

		Males		Females	
	Total (154)	**Low MAMG (41)**	**High MAMG (54)**	**Low MAMG (32)**	**High MAMG (27)**
Social Media Site Evaluation					
Perceived Security	2.59	2.26	2.67	2.93	2.50
Satisfaction	3.58	3.26	3.59	3.68	3.94
Loyalty	3.54	3.41	3.48	3.69	3.69
Social Media Usage					
Twitter	1.34	1.10	1.46	1.28	1.52
Facebook	4.05	3.78	4.11	4.00	4.41
YouTube	3.65	3.73	3.78	3.47	3.48

Note:
Total N = 154, Males = 95, Females = 59, Low MAMG = 73, High MAMG = 81.

interaction effect is significant, simple main effect tests were performed for the low and high mobile access method groups. Gender simple main effects for perceived security were not significant for the low and high mobile access method groups at the 0.05 level providing no support for H_1a. Satisfaction and loyalty show a significant gender main effect at the 0.05 level. Females show much higher satisfaction and loyalty than males. These results provide support for H_1b and H_1c.

For the mobile access method main effects, satisfaction shows a significant mobile access method main effect at the 0.05 level supporting H_2b. The high mobile access method group reports higher satisfaction than the low mobile access method group. Perceived security and loyalty show no significant mobile access method main effect at the 0.05 level. These results provide no support for H_2a and H_2c.

Table 3a shows the results for the two-way MANOVA analysis for the three social media usage measures. MANOVA analysis was performed for the three social media usage measures using gender and mobile access method group as the independent factors. Multivariate tests of significance using Wilks' lambda was reported in table 3a. Gender main effect is not significant while mobile access method main effect is significant at the 0.05 level. The two-way interaction effect is not significant at the 0.05 level. Table 3b shows the univariate analysis results. Figure 1B shows cell means of the usage of Twitter, Facebook, and YouTube sites for males and females on the y-axis and the low and high mobile access method groups on the x-axis. All three types of social media usage show a non-significant gender main effect at the 0.05 level. These results do not provide support for H3a, H_3b, and H_3c. Twitter and Facebook usage shows a significant mobile access method main effect at the 0.05 level while YouTube usage shows a non-significant mobile access method main effect at the 0.05 level. The high mobile user group reported much higher mean usage of Twitter and Facebook than the low mobile user group. These results provide support for H_4a and H_4b but no support for H_4c.

TABLE 2:
MANOVA Results for Social Media Evaluation

Table 2A: Two-way MANOVA Results for Social Media Evaluation

	Wilks' Lambda	F-Value	Significance
Main Effects			
Gender	0.928	3.80**	0.01
Mobile Access Method	0.960	2.05	0.11
Interaction Effect			
Gender x Mobile Access Method	0.950	2.60*	0.05

* $p < 0.05$; ** $p < 0.01$.

Table 2B: Univariate Analysis Results

	Social Media Evaluation		
	Perceived Security	Satisfaction	Loyalty
Main Effects			
Gender	2.82	3.90*	9.60**
Mobile Access Method	0.01	5.61*	0.08
Interaction Effect			
Gender x Mobile Access Method	7.82**	0.09	0.07

F-Values are presented in the table.
* $p < 0.05$; ** $p < 0.01$.

TABLE 3:
MANOVA Results for Social Media Usage

Table 3A: Two-way MANOVA Results for Social Media Usage

	Wilks' Lambda	F-Value	Significance
Main Effects			
Gender	0.954	2.39	0.07
Mobile Access Method	0.934	3.47*	0.02
Interaction Effect			
Gender x Mobile Access Method	0.998	0.08	0.96

* $p < 0.05$; ** $p < 0.01$.

Table 3B: Univariate Analysis Results

	Social Media Usage		
	Twitter	Facebook	YouTube
Main Effects			
Gender	0.73	2.44	2.81
Mobile Access Method	3.27*	4.90*	0.03
Interaction Effect			
Gender x Mobile Access Method	0.21	0.05	0.01

F-Values are presented in the table.
* $p < 0.05$; ** $p < 0.01$.

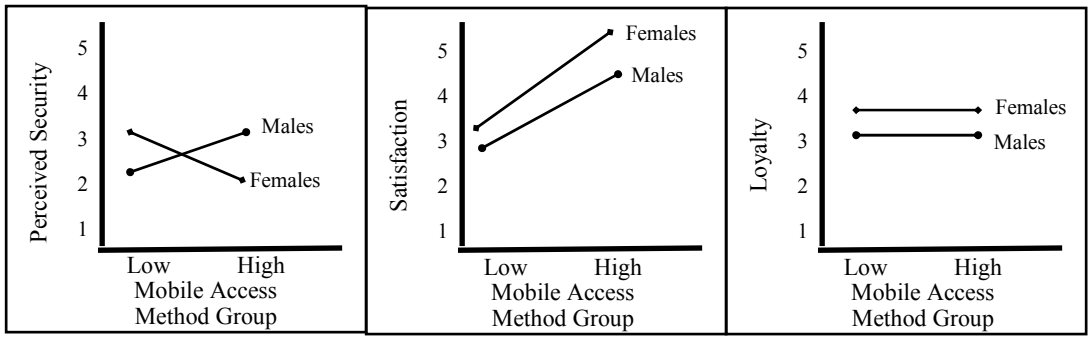
DISCUSSION

This study explores the effects of gender and the mobile access method used on the social media evaluation dimensions of perceived security, satisfaction, loyalty, and social media usage of the three types of social media. The results of the study show that there exist significant gender differences in evaluation of social media sites. Females consistently show much higher satisfaction and loyalty of the social media sites than males. For the high mobile access method usage group, males show higher perceived security than females but the difference is not significant at the 0.05 level. For the low mobile access method usage group, females show slightly higher perceived security than males. These findings are somewhat contradictory to previous research showing that females tend to be less satisfied, less loyal, and less secure in e-shopping and e-commerce activities. These interesting and unexpected findings may be due to the unique aspects of social media that allow non-task oriented interaction and socialization among participants supporting the notion of social script theory (St. Clair, et al., 2005; Lee, et al., 2010; Sierra, et al., 2012). In addition, the findings suggest that females derive different experiential values from social media than males leading to higher evaluation and usage of social media (Chen & Granitz, 2012; Gentile, et al., 2007). These results can have significant managerial implications. The implication is that firms need to develop customized social media strategies considering their primary target users of the sites.

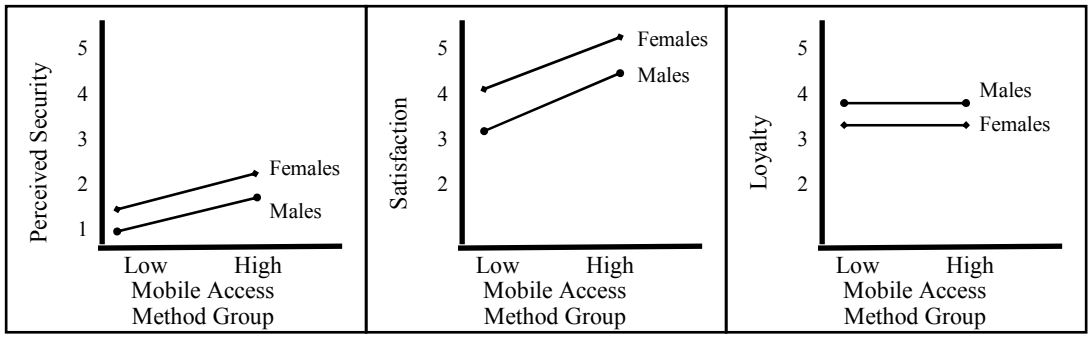
This study also found significant difference in satisfaction and usage of Twitter and Facebook depending on the use of the mobile access method. Interestingly, the high mobile access method group reports higher satisfaction than the low mobile access method group. The high mobile access method group shows higher usage of Twitter and Facebook than the low mobile access method group. For the YouTube usage, there is no significant difference between the low and high mobile access method group. As the mobile devices are being adopted by more users, social media sites should modify the design and layout of their social media sites so that they are easy-to-use and can be displayed properly to users of mobile devices (Moss, Gunn, & Heller, 2006). Firms interested in using social media

FIGURE 1:
Graph of Marginal Means for the Gender and Mobile Access Method Groups

1A. Social Media Evaluation



1B. Social Media Usage



marketing and social media tools should promote and develop strategies to accommodate more mobile device users. Given the expanding power and availability of mobile devices, firms must consider the mobile user foremost in managing social media sites. When developing mobile services for social media, firms should pay attention to all aspects of feeling and enjoyment, especially for experiential services (Nysveen, Pedersen, & Thorbjørnsen, 2005). This study examined how individuals assess their experience to create, use, and share information and knowledge using various social media sites through mobile and non-mobile access methods.

In interpreting the findings of this study, care should be given. A potential limitation is that the Millennial respondents do not represent a diverse enough audience. The generalizability of the results from this study is limited as to the nature of the sample. Future research should address these limitations by using diverse samples to validate this study's findings. The findings show no significant gender differences in social media usage. This result may be due to the Millennial sample used in this study. As the Millennials are active users and embrace new media (Bolton, et al., 2013; Moore, 2012), the gender gap may not be as strong as expected. Future research should test gender differences in social media evaluation and usage using other sample groups. In addition, future research needs to identify additional personal and behavioral factors and evaluate their influence on social media evaluation and usage. Additional characteristics of the individual, such as their mobile expertise, social media knowledge, goal orientation, and other demographic factors should be investigated. While this study evaluated the usage of the three major types of social media, future research should be conducted to test the influence of personal and behavioral factors

including gender and access method on users' evaluation and usage of other social media types such as game sites. The social media usage measure used in this study was self-reported. Future research should utilize actual measures of social media usage activity and responses obtained from different types of social media sites of a specific firm.

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INVESTIGATING FORM AND FUNCTION INFLUENCES ON FOLLOWER PRODUCTS' PERFORMANCE

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This research investigates how product form and product function influence a follower firm's product performance. Specifically, it draws on categorization theory to theorize how a follower product's form and functionality combine to influence consumers' willingness to buy a follower's product. An experiment exploring these relationships finds that, on average, consumers are more willing to buy a follower product with superior functionality relative to a pioneer. Furthermore, the influence of superior functionality is enhanced when the product's form is similar to the pioneer product's form. This research discusses the managerial and theoretical implications of these findings and highlights opportunities for future research.

INTRODUCTION

Pioneer firms are the first to commercialize a new product category (Golder & Tellis, 1993), and pioneer products often establish a strategic advantage over follower products through consumer-based or producer-based factors (Carpenter & Nakamoto, 1989; Golder & Tellis, 1993; Kardes & Kalyanaram, 1992; Lee & Ng, 2007; Zhang & Markman, 1998). While there are exceptions, the pioneering advantage (or first-mover advantage) tends to exist in many markets (Kardes & Kalyanaram, 1992; Kerin, Varadarajan, & Peterson, 1992), and pioneers tend to enjoy long-lived market share advantages in route to becoming market leaders (Bohlmann, Golder, & Mitra, 2002; Golder & Tellis, 1993; Kerin et al., 1992; Robinson & Fornell, 1985). As such, firms that compete as followers are challenged to establish an effective strategic position upon which they will compete with the pioneer and with other followers.

In markets dominated by manufactured products, followers tend to compete on product-specific dimensions (Bloch, 1985) or non-product dimensions, such as price (Wilkie, Johnson, & White, 2012). Regarding product-specific decisions, followers generally establish their position in the market based upon product form and product functionality properties. A product's form represents a number of elements chosen and blended into a whole by the design team to achieve particular sensory effects (Bloch, 1995; Lewalski, 1988). A product's functionality determines the potential actions the product allows consumers (Ziamou & Ratneshwar, 2003). In all, a follower firm's strategic form and function decisions are critical because they influence how consumers evaluate and respond to their product (Creusen & Schoormans, 2005; Loken, Barsalou, & Joiner, 2007; Loken & Ward, 1990; Mugge & Dahl, 2013; Sujan, 1985; Zhang & Markman, 1998).

Product form and product function design decisions are more critical and interrelated in some markets than others. For instance, in the disposable diaper market, products look similar and are expected to deliver on a small set of functional benefits, mainly leak prevention. In other markets consumers evaluate products on a wider arrange of potentially functional properties and product form can be more varied. For example, in the home game console market, product forms have evolved from the Atari joystick, to the flatter Nintendo controller designs, to the Wii motion-sensor controls and the Kinect system that uses motion and voice sensors without a hand-held controller. Products in that market also contain several key functional properties, including the number of

The Marketing Management Journal
Volume 24, Issue 2, Pages 136-148

compatible games, graphic capabilities, internet connectivity, and DVD or Blu-ray compatibility, among others.

In markets where consumers tend to place a high value on fewer product function properties and where product forms are more consistent, such as the disposable diaper market, evidence suggests pioneer firms face more difficulty defending their brands compared to markets where a wider array of design properties are salient to consumers (Bohlmann et al., 2002). In such markets, the follower firms fare better because they can focus on doing better on the key product properties. This allows them to find lower cost ways of competing for consumers. In contrast, in markets where consumers might value a broader set of functional properties pioneers tend to maintain their market share by establishing a strong position along specific properties valued by a significant number of consumers (Bohlmann et al., 2002). In such markets, followers face important choices regarding whether to compete directly with a pioneer or to differentiate their product with form and function design choices or on non-product dimensions.

In either market context, follower firms need to clearly understand the impact of product form and function design decisions on their market performance. Additionally, a growing amount of research suggests that these decisions should be viewed jointly (Bohlmann et al., 2002; Goode, Dahl & Moreau, 2012; Mugge & Dahl, 2013; Townsend, Montoya & Calantone, 2011; Townsend et al., 2013; Ziamou & Ratneshwar, 2003). Yet, as Townsend et al. (2011, p. 377) highlight, "relatively few studies have empirically examined the relationships among form, function, and consumer response."

Early research in this area highlights important design principles influencing a follower product's performance. For example, evidence suggests that followers most effectively compete when they achieve design superiority along alignable, or easily comparable properties (Zhang & Markman, 1998). This line of research does not necessarily differentiate between product form and function properties, rather it focuses on the comparability of properties between followers and pioneers. Of course, from a managerial viewpoint, follower firms must balance design decisions regarding where to be different and where to be similar, and as discussed, this decision is more complex in some markets than others.

Increasingly, research tends to address more of the complexity in these design decisions, but there is a clear need for more research investigating the relationships between product form and function decisions and consumer responses. For instance, research indicates that introducing a follower product with a new functionality, though not necessarily better functionality, can be most effective when that new product's form is dissimilar relative to existing comparable products (Ziamou & Ratneshwar, 2003). However, Mugge & Dahl (2013) find that, products with radically new functionality are viewed more favorably by consumers when they have dissimilar product forms rather than similar product forms. Furthermore, for products with incrementally new functionality, Mugge & Dahl (2013) report no difference in the influence which alternative product forms (low versus high design newness) have on consumer evaluations of new products. Thus, as Townsend et al. (2013) highlight, the joint influence of product form and product function design choices on product performance can be complex, and additional research is needed to continue to clarify these relationships.

Our research builds on this growing line of research and seeks to provide additional clarity in what can be a complex decision for firms marketing a follower product. In particular, we investigate whether a follower product's functional superiority relative to a pioneer product influences consumers' willingness to buy the product and whether this influence is dependent upon the similarity of the product's form relative to the pioneer product's form. In addition to building on this growing line of research, we also complement Mugge and Dahl's work (2013) in a meaningful way. Specifically, we examine the moderating role of product form in the context of product functionality superiority (similar vs. higher), whereas they examined its moderating role in the context of product functionality newness (innovative vs. incremental).

Multiple studies indicate that understanding how consumers categorize products may be the most promising route to understanding how product form and function decisions impact product success (Goode, Dahl & Moreau, 2012; Mugge & Dahl, 2013). As such, we utilize categorization theory to theorize how and why form-based and function-based design decisions influence consumers' willingness to buy a follower's product. We proceed by further defining form-based and function-based design principles and reviewing categorization theory (Cohen & Basu, 1987; Loken & Ward, 1990; Moreau, Lehman, & Markman, 2001b; Sujan & Bettman, 1989; Spalding & Ross, 1994). We then present our study's hypotheses, discuss the experimental design used to test our hypotheses, and present the results and implications of our experiment.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Form-based and Function-based Design

A product's form represents a number of elements chosen and blended into a whole by the design team to achieve particular sensory effects (Bloch, 1995; Lewalski, 1988), and form-based design refers to a product's physical form and appearance. Form-based design decisions can have cognitive and affective implications for consumers (Bloch, 1995), and consumers' responses to product form can develop instantaneously below the level of consciousness (Lewalski, 1988). As such, product form can influence consumers in ways distinct from the operational or functional purpose of the form. For instance, Creusen and Schoormans (2005) explain that a product's form can communicate symbolic and functional information, draw the individual's attention to the product, and aid in categorizing the product. Bloch (1995) also exemplifies the many facets of product form using the example of a Harley-Davidson Sportster. Elements of the Sportster's design include the chrome's sparkle, the engine's prominent V-configuration, the teardrop gas tank, the visible mechanical components, and the way in which these elements work together as a visual whole.

Functionality refers to the potential actions the product allows consumers, and functional-based design improvements can occur at any stage of a product's life (Ziamou & Ratneshwar, 2003). Functionality has been shown to influence consumers' categorization of single- and multi-functional products (e.g., Saaksjarvi & Samiee, 2011) and consumers' preference for specific products (Zhang & Markman, 1998). Research also suggests a need to further investigate the link between consumer's processing of form and function and their intentions and preferences for products (Creusen & Schoormans, 2005; Townsend, Montoya & Calantone, 2011; Townsend et al., 2013; Ziamou & Ratneshwar, 2003). We examine this link theoretically using categorization theory (Cohen & Basu, 1987; Loken & Ward, 1990; Moreau et al., 2001b) and experimentally to understand how form and function combine to influence consumers' willingness to buy a follower product.

Categorization Theory and Follower Products

A consumer category is defined as a set of products, services, brands, or other marketing entities, states or events that appear related in some way to consumers (Loken et al., 2007). Categorization theory posits that consumers assign particular products or services to a category to help them better understand and draw inferences about the products or services (Loken et al., 2007; Loken & Ward, 1990; Sujan, 1985). Traditionally, categorization literature focuses on how people organize knowledge in memory and how they classify novel objects (Cohen & Basu, 1987; Loken & Ward, 1990; Moreau et al., 2001b; Sujan & Bettman, 1989; Spalding & Ross, 1994). Consumers can also use categories in making inferences or learning about new products, particularly in reference to ambiguous products (Gregan-Paxton & Cote, 2000; Gregan-Paxton & John, 1997; Moreau et al., 2001b; Murphy & Ross, 1994). In regards to making inferences about follower and pioneer products, it is important to clarify how familiar information, such as information about a pioneer product, influences the categorization of unfamiliar information, such as information about a follower product.

One way information is categorized is by single domain knowledge transfer, where knowledge

from a familiar domain (e.g., film camera) is transferred to an unfamiliar target (e.g. digital camera). This happens in three stages: accessing information, mapping it, and transferring it (Moreau, Markman, & Lehman, 2001a; Moreau et al., 2001b; Gregan-Paxton & John, 1997). If a familiar domain can be accessed, properties of that category are placed in a near one-to-one correspondence with properties of the less familiar target to facilitate knowledge transfer (Moreau et al., 2001a; 2001b). This general categorization process can help explain how a follower product's form and function relative to a pioneer's product influences consumers.

For example, let us first consider a situation wherein a consumer perceives a follower product's form as similar to a pioneer product's form. We begin this example by focusing on product form because a consumer's response to product form can develop instantaneously (Lewalski, 1988) and these instantaneous product form perceptions can communicate multiple types of information about a product (Creusen & Schoormans, 2005). Drawing on categorization theory, when a follower product's form is similar to a known pioneer product the consumer may be initially encouraged to categorize the follower product (the target) as familiar in relation to the pioneer product (the familiar domain). With this familiar domain identified, the consumer attempts to access information from this familiar domain and to map product form and product function information about the pioneer product onto the properties of the follower product. If successful, this mapping will facilitate knowledge about the pioneer being transferred to the follower. Thus, the follower's product is likely to be categorized with the pioneer's product and to be evaluated via a single-domain category-based processing (Sujan, 1985). With the category mentally accessed, the consumer engages in further one-to-one comparisons of the follower product's form and product function features with the pioneer product's form and function features. This categorization process is likely to be similar for each successive product that enters the market.

This conceptual example can be extended to a more tangible example of smartphones. Consider a newly released phone that looks similar to an iPhone (i.e., the pioneer). Consumers initially categorize the follower's product as a smartphone and transfer their knowledge and experience from the iPhone to the follower's product. Past experience with iPhone enables consumers to make one-to-one comparisons of the iPhone product features (e.g. voice-recognition, fingerprint recognition, camera pixels, screen resolution, screen size, etc.) with the features of the follower's new product.

However, when a follower product is less like anything a consumer has ever seen before, the consumer likely will not have a readily available family domain from which to categorize the target product (Gregan-Paxton, Hibbard, Brunel, & Azar, 2002). Thus, sometimes a consumer utilizes some more distant, yet plausible category to access knowledge that allows the consumer to suggest the new product's category membership. This may even include drawing inferences from multiple plausible categories (Gregan-Paxton, Hoeffler, & Zhao, 2005). Relative to the former case of single domain knowledge transfer, the categories in this case have far fewer direct connections with the new target product. Research indicates that, relative to instances where a more familiar domain is available, consumers in this circumstance tend to make more extensive mappings from the plausible category, or categories, to the target (Gregan-Paxton & Cote, 2000; Moreau et al., 2001b; Gregan-Paxton et al., 2005).

In the context of a follower product and pioneer product, if a follower product's form is perceived as different from the pioneer's, consumers may be less likely to perceive the pioneer's product as providing a readily available domain from which to access and transfer knowledge. Goode et al. (2012) find evidence of this, noting that consumers indicate lower categorization certainty for non-prototypical product forms if they only view the product's appearance. In such cases, consumers recognize far fewer direct comparisons with the pioneer product from which to access, map, and transfer knowledge to use in categorizing and evaluating the follower product. In such case, one-to-one comparisons are less like to occur between the follower product's features and a

pioneer product's features. Thus, while the relative functionality features may eventually place the follower and pioneer products in the same category after the consumer's complete categorization process, evaluation of the follower's product functionality is potentially less dominated by comparisons with the pioneer's product as in the previous example.

We posit that this underlying categorization process influences how consumers respond to the form and function design decisions made by firms marketing follower products. Next, we hypothesize how the relative form and function design decisions made by follower firms influence consumers' willingness to buy their product.

HYPOTHESES

Form, Function and Willingness to Buy

Our empirical investigation begins with the influence that product functionality has on follower product performance, with special consideration then given to whether product form impacts this potential influence. Zhang and Markman (1998) find that if late entrants' products are superior to earlier entrants' products on easily comparable properties, consumers prefer the late entrants' products over earlier entrants' products. The research by Bohlmann et al. (2002) similarly finds that followers compete more successfully against pioneers in markets where consumers view products upon narrowly defined, highly valued functional properties. Together, these studies suggest that, on average, consumers' preference for a follower's product will rise as perceptions of the product's functionality relative to a pioneer's product rises. We propose that this preference will be reflected in a consumer's willingness to buy the follower's product.

Whereas the previous studies we note examine this effect in relation to the comparability of properties (Zhang & Markman, 1998) and in relation to the market context (Bohlmann et al., 2002), we examine this relationship as a main effect, here, and in relation to a product's form, next. Additionally, recall that our examination complements that of Mugge and Dahl (2013). They examine the main effect of functionality newness (innovative vs. incremental) on consumer attitudes, and we exam the main effect of relative functionality superiority (similar vs. higher) on consumer willingness to buy. Thus, we first test the following hypothesis.

H_1: On average, a follower product's functionality relative to the pioneer's product is positively related to consumers' willingness to buy the follower's product, such that higher relative functionality leads to a higher willingness to buy the follower's product.

All categories have a prototype, or abstract image of the members of the category. Category membership tends to be determined by the target product's degree of similarity ("match") or dissimilarity ("mismatch") to this prototype (Rosch & Mervis, 1975; Sujan, 1985; Goode et al., 2012). In the case of a match, categorization will be successful and the object will be evaluated by way of category-based processing (Sujan, 1985). Moreover, when the new product is identified as belonging to a familiar category, the attitude of the familiar product will influence the evaluation of the new product (Boush & Loken, 1991). On the other hand, if the new product is dissimilar to the consumer's prototype knowledge, categorization will not be successful (Goode et al., 2012), and piecemeal processing will be evoked (Sujan, 1985).

Product form is the initial and one of the most important ways to gain consumer attention and communicate information to consumers (Bloch, 1995). Product form also provides visual cues with which the product is interpreted and from which some meanings are derived (Creusen et al., 2010; Rindova & Petkova, 2007). More specifically, Goode et al. (2012) shows that prototypicality of the new product's form and availability of category cues affect the categorization of new product which eventually influences the new product's evaluation. Thus, product form similarity between the follower and pioneer product can potentially determine the category membership of the follower product and subsequent processing of the product functionality.

If the follower's new product design is similar to the pioneer's, the product design is likely to

be perceived as a good match to the prototype and consumers will be engaged in a familiar category-based processing (Goode et al., 2012; Sujan, 1985). With the category mentally accessed, the category label encourages consumers to think of the object as a whole with one-to-one comparison, focusing on the features within the category (Moreau et al., 2001a; 2001b). Thus, we theorize that when consumers can categorize the follower's product based on similar form with the pioneer (or prototype), they are likely to focus more on one-to-one comparison of the functionality between the pioneer and follower products. In such cases, the positive aspects of the follower product's functionality are likely to stand out, and the influence of the follower's product functionality on consumer's willingness to buy the product is likely to be strengthened.

In cases where the follower's new product form is perceived as different from the pioneer product's form, we theorize that it is more likely that consumers will engage in piecemeal processing (Sujan, 1985). In this case, we theorize that the pioneer's product will be less influential on the consumer's categorization of the follower's product. Thus, we anticipate that if a follower's product form differs noticeably from the pioneer's product form then consumers are less likely to rely upon and to utilize knowledge about the pioneer product to assess the follower product's functionality (Moreau et al., 2001b). As a result, the follower product's relative functionality is less likely to stand out and its relative functionality will receive less encoding and elaboration (Zhang & Markman, 1998). As a result, we propose this will attenuate the positive impact of the follower product's higher relative functionality on the consumer's willingness to buy the follower product.

In sum, we expect that product form can moderate the positive relationship between relative functionality and a consumer's willingness to buy a follower product and examine the following hypothesis.

> **H_2**: Product form moderates the positive relationship between relative functionality and consumers' willingness to buy a follower's product such that the willingness to buy a higher functioning follower product is higher when the follower's product form is similar (versus dissimilar) to the pioneer's.

Building on the concept of learning costs (Mukherjee & Hoyer, 2001), Mugge and Dahl (2013) propose that product form only impacts consumers' response to innovative (vs. incremental) new functionalities. Because their research focusses on innovation, they highlight that "specific differences (i.e., advantages and disadvantages) between the radical and incremental innovations are not the central focus of the analysis" (Mugge & Dahl, 2013, p. 39). Thus, while we examine the moderating impact of product form on the relationship between product functionality superiority and consumer responses, we recognize and wish to highlight that this is only a portion of the complexity underlying the joint influences which product form and product function have on product success (Townsend et al., 2013)

PRE-TEST EXPERIMENT

Methodology

We test our hypotheses using an experimental design, and we first identify product form stimuli (similar vs. dissimilar) for the experiment. For the form design pre-test, 31 undergraduate business students at a major southeastern university in the U.S. participated in an experiment designed to test the similarity and aesthetic attractiveness of alternative product designs. We followed the work of Zhao, Hoeffler, and Dahl (2009) and used mock advertisements with stimuli based on actual products but with all distinguishing brand markings removed. The stimuli for the pioneer were also developed according to Zhao et al., (2009), and the pioneer was called the XIO.

In the pre-test, participants were given a brief description and picture of the pioneer product, "a new Audio PC, the XIO," and eight different pictures of another Audio PC, the APC. The eight different pictures of the APC were counter-ordered in two different formats to eliminate any ordering effects. Prior to viewing the eight different Audio PC pictures, participants first read the following statement, 'The following pictures are designs of another

Audio PC (APC). Please look at the picture and answer the questions below.'

Results

The purpose of the pre-test is to select a pair of designs for the APC that are statistically different in terms of the perceived similarity relative to the pioneer, the XIO, but have comparable aesthetic values. Paired comparison analysis was performed to test the similarity of pairs of designs. We identified a statistically significant difference ($p < .000$) for 19 of the pairs. Then, another paired comparison analysis was performed to test the aesthetic value of different design pairs. Out of 20 pairs, 3 were identified as having no significant difference in aesthetic value. Tests to determine whether there was any ordering effect indicated no ordering effects. Based on this pre-test, one pair of stimuli was chosen to represent the followers' dissimilar and similar form stimuli. This pair was one of the 19 with significantly different similarity ratings which also revealed no significant difference in aesthetic value [stimuli 5 & stimuli 8; $t(32) = 1.31$, $p = .199$],

MAIN-TEST EXPERIMENT

Methodology

In exchange for extra credit, 64 undergraduate students in a major southeastern university in the U.S. participated in an experiment designed to test the effects of form and functionality of a follower's new product on consumers' willingness to buy (WTB). A between-subject experiment was conducted in which two factors were manipulated (2 x 2 ANOVA): relative functionality of a follower's new product (similar vs. higher) and form of the follower's new product (similar vs. dissimilar). Students were randomly assigned to one of four conditions in a 2 x 2 between subject experiment. The sample sizes are 16 in the similar function and dissimilar form condition, 15 in the lower function and similar form condition, 16 in the higher function and similar form condition, and 17 the in higher function and dissimilar form condition. In this experiment, every participant saw the same picture and functionality description for the pioneer product.

To introduce the pioneer product, participants were presented a picture of the pioneer's product, the XIO, along with a description of its functionality. Participants first read directions which stated, 'The following provides detailed information of a new product, the XIO. This is the first product in the Audio PC market. Please read it carefully.' Then, subjects saw a picture of the pioneer product with a headline, short product description, and functionality specifications. Table 1 shows the functionality specifications for the pioneer product along with the relative functionality descriptions (similar vs. higher) for the follower product. The headline accompanying the pioneer picture stated 'The Audio PC, the XIO, is the mobile product for people on the go' (Zhao et al., 2009), and the following short product description accompanied the headline:

> The Audio PC, the XIO ultra–portable notebook, gives users outstanding performance in a small and light notebook. The XIO can recognize users' handwriting and voice. So, users can revise or annotate documents whenever or wherever they want. XIO also attaches a wearable eyeglass mounted monitor which provides 3D color image with QVGA resolution (Zhao et al., 2009).

After being introduced to the pioneer product, one week was allowed to pass before introducing the follower's new product. When the participants were introduced to the follower's product, each participant was again given the pioneer's picture. The directions accompanying the follower's product stated, 'The following provides detailed information of another Audio PC (the APC). APC is the later entrant in the Audio PC market. Please read it carefully.' The information each participant then read contained a picture that was either similar or dissimilar to the pioneer product and a description of the follower product functionality that was either higher or similar relative to the pioneer.

The follower product functionality (similar vs. higher) was manipulated by two different functionality descriptions (Zhao et al., 2009). Following Zhao et al. (2009), we included three components in product functionality descriptions: the headline, a short description of

the product and a set of product features. The headline stated 'The APC is the mobile product for people on the go.' This short description accompanied the headline:

> The APC ultra–portable notebook gives users outstanding performance in a small and light notebook. The APC can recognize users' handwriting and voice. So, users can revise or annotate documents whenever or wherever they want. APC also attaches wearable eyeglass mounted monitor which provides 3D color image with QVGA resolution.

As shown in Table 1, four functionality features for the follower product were common to the pioneer, and four features were distinctive in the higher relative functionality condition (Zhao et al., 2009). After the pioneer and follower product functionality and pictures were presented, participants were asked to indicate their willingness to buy the follower product (Zhang & Markman, 1998).

Measures

The subject's willingness to buy the follower product was assessed by asking respondents to fill out three seven-point scale items (α =.91).To assess the pioneer and follower manipulation, participants were asked to indicate 'which of the following was the first entrant in Audio PC market? Please check the blanks,' and 'which of the following was the later entrant in Audio PC market? Please check the blanks: (A. _____XIO, B._____APC).' To assess the product form manipulation, participants were asked, 'Does the product design of the APC look similar to the XIO?' using a 7-point scale where 1=similar and 7=dissimilar. To assess the functionality manipulation, participants were asked, 'Based on the above functional descriptions of the APC, please rate how good you think APC is compared with the XIO' using a 7-point scale where 1=similar and 7=much better. To investigate the extent to which categorization theory explains the underlying mechanism affecting consumers' product evaluation, respondents were asked, 'Do you perceive that product APC belongs to the same product category as the product XIO?' and responses were measured using a 7-point scale where 1=same product and 7=very different product. After participants evaluated the products, they were also asked questions measuring their motivation, familiarity with the product, innovativeness, need for cognition, and knowledge.

Results

Participants' ability to properly distinguish between pioneer and follower is a basic and critical factor in this experiment. Based on the respective manipulation check, we removed five data points from analysis because they

TABLE 1:
Product Functionality Stimuli Statements

Pioneer Product Functionality	Follower Product Higher Relative Functionality	Follower Product Similar Relative Functionality
Biometric smart pen recognizes, stores, and converts handwritten text, Chip-based audio recorder synchronizes with handwritten notes, PDF file enhancer allows for onscreen annotation, wearable computer attachment has eyeglass, Mounted LCD display, Light-weight (weighs about 4.5 pounds), 14" TFT screen, Intel Pentium M processor at 1.73 GHz. and Three-year limited warranty (Zhao et al., 2009).	Biometric smart pen recognizes, stores, and converts handwritten text, Chip-based audio recorder synchronizes with handwritten notes, PDF file enhancer allows for onscreen annotation, Weara-ble computer attachment has eye-glass-mounted LCD display, Lightweight (weighs about 2.5 pounds), 20" TFT screen, Intel Pentium M processor at 4.52 GHz and Ten-year limited warranty.	Biometric smart pen recognizes, stores, and converts handwritten text, Chip-based audio recorder synchronizes with handwritten notes, PDF file enhancer allows for onscreen annotation, Wearable computer attachment has eyeglass -mounted LCD display, Light-weight (weighs about 4.4 pounds), 14" TFT screen, Intel Pentium M processor at 1.74 GHz and Three-year limited warranty.

failed to identify the XIO as a pioneer and APC prior to testing our hypotheses. Further manipulation check results demonstrated that the higher functionality condition recorded a higher perceived functionality level (5.13) than similar functionality condition (2.58) [F (1, 60) =40.79, p=.000]. Also, the dissimilar product design condition recorded a higher perceived dissimilarity level (6.22) than the similar product design (4.97) [F (1, 60) =15.02, p=.000]. The result of the process mechanism check demonstrated that similar product form is perceived as a more similar product category (2.29) than the dissimilar product form (2.88) [F (1, 62)=2.82, p=.098] suggesting that, as theorized, the product form manipulation plausibly influenced the participants' categorization of the stimuli.

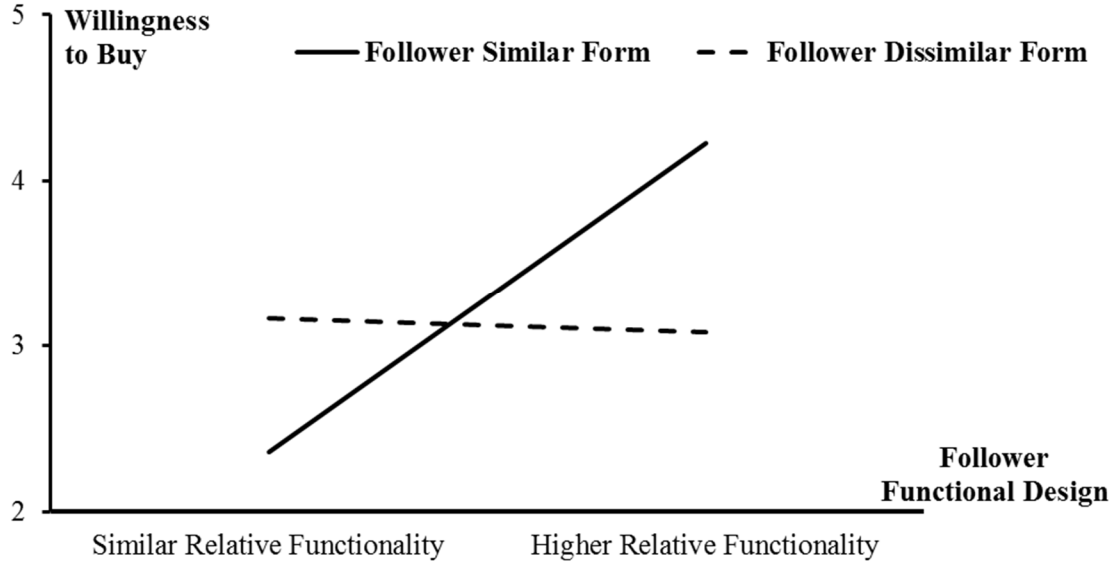
Figure 1 graphically represents our experiment's results. We performed a two-way between-group ANOVA analysis to explore the impact of the follower's form and relative functionality on consumers' willingness to buy. Our results indicate a main effect of follower product functionality with respect to WTB is significant at the .05 level [F(1, 60)=6.00, *p* = .017] and in the hypothesized direction. On average, consumers who viewed a follower product with a higher relative functionality than the pioneer product reported a higher WTB the product. As such, we find evidence supporting H_1.

Results also indicate that the interaction of the follower's form and relative functionality has significant influence on consumers' WTB the follower's product [F(1,60)=7.24, *p*=.009]. This indicates that a follower product's form moderates the influence a follower product's relative functionality has on consumers' WTB. As such, we find evidence supporting H2. As figure 1 shows, the influence of higher relative functionality is most pronounced when the follower product has a similar form to the pioneer product and the difference is statistically significant [t(1,60)=2.27, p < .05].

DISCUSSION AND IMPLICATIONS

This research examines the influence that product form and function decisions have on follower product performance. Drawing on categorization theory and extant research on pioneer and follower product performance, we theorize that superior functionality relative to a pioneer product raises consumers WTB a follower's product and that this effect is most pronounced when the follower's product form is similar to the pioneer product's form. We

FIGURE 1:
Results for Form and Function design Influences on Willingness to Buy the Follower Product.



find evidence of these relationships in an experimental setting, leading us to conclude firms investing in functional superiority for a follower product can potentially earn the greatest return on their investments if they also design the product in a form similar to the pioneer product. Conversely, if a follower firm designs a product with a similar form to a pioneer's product and does not invest in superior functionality, the product may not perform up to expectations. Thus, follower firms need to critically consider product form and product function design decisions simultaneously when entering a market with a strong pioneer product.

Our investigation into product form and product function provides multiple insights to marketers of follower products and pioneer products. First, when deciding to compete against a pioneer product, marketers should consider non -product ways of competing if relative improvements in functional benefits are limited. Our results indicate that choosing to go head-to -head with a similar product form and similar functional properties can hinder consumers' willingness to buy the follower product. In such cases, competing on price or alternate distribution channels may be more effective.

Second, in markets where product form is inherently similar across markets, pioneer firms should continuously pursue functional improvements in their product line. The similarity in followers' product form means that there is high probability that consumers will quickly categorize successive products with the pioneer. As such, consumers will tend to make direct, strong comparisons regarding similarity and differences between the followers' and the pioneer's product functionality. As follower products constantly improve on how they position their functionality, it can quickly lead to lower market share for the pioneer. This is a consumer-based explanation for what Bohlmann et al. (2002) find and explain in more supply-side terms.

Also, whereas Zhang and Markman (1998) recommend that followers build superiority along easily comparable, or alignable attributes, our study further indicates that the benefits of this superiority may be most recognized when a follower's product form is also similar to the pioneer's. Our finding that, on average, superior relative functionality leads to a greater willingness to buy a follower's product matches their findings, but we further clarify that this relationship is strongest under conditions of similar product form.

Of course, pioneer firms can also utilize the essential categorization principles to defend their product's market share as markets mature. For instance, adjusting a pioneer product's form may alter the initial, perhaps unconscious (Lewalski, 1988), mapping and transfer of knowledge about the product with others in its category. Interrupting this initial, automatic mapping and transfer of knowledge may allow consumers the opportunity to re-evaluate the product. This re-evaluation may not re-categorize the product, but it may draw more attention to the product, broaden consumers' evaluation of the product (Gregan-Paxton & Cote, 2000; Moreau et al., 2001b; Gregan-Paxton et al., 2005), or add symbolic value to the product (Creusen & Schoormans, 2005). In other words, while we primarily focus on how follower firms can maximize the combination of product form and product functionality decisions, pioneer firms also have opportunities to utilize the underlying principles for their own benefit.

Finally, our research adds to the body of work seeking to examine and explain the complexity underlying the joint influences which product form and product function have on product success (Goode et al., 2012; Townsend et al., 2013; Mugge & Dahl, 2013). Our study builds upon research examining product appearance and its influences on consumers' categorization and impressions of products (Goode et al., 2012; Creusen et al., 2010). We explain how and provide evidence that product form can influence the impact of product functionality due to its likely influence on categorization. Of course, in showing that a follower product's form can influence consumers' response to a follower product's functional superiority relative to a pioneer's product, we find evidence that is seemingly counter to findings that product form may not necessarily influence consumer response to product functionality newness (Mugge & Dahl, 2013). Neither our study nor Mugge and Dahl's (2013) parse out the potential difference that functionality

newness and superiority have on consumers' response toward products. This makes it difficult to clarify the exact boundary conditions of the moderating relationship between product form and product function on consumer response and eventual product success, but the seemingly conflicting results suggest that boundary conditions may exist.

Our research findings appear consistent with the findings of Mugge and Dahl (2013) in their radical innovation condition, so the boundary conditions appear to exist in contexts characterized by incremental innovations. The interesting distinction to be made has two parts. First, do consumers process functional newness and functional superiority differently, thus leading to different influences of product form? Existing studies, ours included, do not address this question directly, but it seems important to consider in future studies. Second, what influences do knowledge transfer context and product category context have on the relationships among form, function, and consumer response? Our experiment primed participants to transfer knowledge from a pioneer product to the follower product. On the contrary, in the context of Mugge and Dahl (2013), the pioneer product was not given. Thus, the knowledge transfer context was manipulated differently in each study. Perhaps this contributes to the different findings. Also, while technology played a role in the functional differences of products in each study, the product categories in each study were different and might have contributed to the different findings. Our study uses a relatively high-tech product (a biometric smart pen), and their study uses more common products (digital camera, washing machine, and hairdryer). Future research should continue to examine how product category influences the combined effects of product form and product function on product success.

Moreover, Ziamou and Ratneshwar (2003) study the interaction between product form and function in an advertising context, with attention to the relative newness of functionality rather than the relative quality of functionality. They conclude that greater product form dissimilarity enhances the influence of new functionality on consumer preferences. Thus, while they also find that it is important to consider the interaction of function and form when introducing a new product functionality, their interaction tends to be of a different manner than what our research and that of Mugge and Dahl (2013) find. We believe that the differences in these studies create interesting opportunities for future research.

LIMITATIONS AND FUTURE RESEARCH

We believe our research makes an important contribution, but this study has multiple limitations. First, because we only use a single experiment in a single product category our findings may not generalize to other contexts. We hope that future research will further examine the interaction between product form and function using additional research designs and additional product categories. For instance, it would be helpful to examine if the same results are found in non-technology consumer good contexts or in business-to-business contexts.

Second, we do not extensively investigate the underlying mechanism driving our results in our experiment. Our manipulation check indicates that our theorization is a plausible explanation for our findings, but additional research is needed to more fully validate that categorization theory provides the best explanation for our findings. From a theoretical perspective, it would be fruitful for future research to more deeply explore the theoretical underpinnings of how product form and function interact to influence follower product performance. We believe that our literature review and our comparisons among studies can help spur such research.

Third, while research continues to provide greater clarity on the relationships between product form, product function, and consumer response, our study and others in this indicate a greater need to identify boundary conditions. We hope that future studies will further examine the roles of knowledge transfer contexts and different types of product function enhancements (e.g., newness vs. superiority).

In sum, we examine how product form and product function interact to influence follower product performance. We find that the benefits

follower products realize by providing relatively superior product functionality are enhanced when their product form is more similar to that of the pioneer. These results appear to be attributed to how consumers categorize new products. We propose these findings are managerially relevant and provide promising avenues for future research.

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THE EFFECTS OF SELF-CONTROL FAILURES ON RISKY CREDIT CARD USAGE

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Self-control theory offers insights for explaining why consumers resist or succumb to buying urges. We examine self-control failures in terms of behavioral, psychological, and social constructs and assess their impact on credit card debt by college students. Specific antecedent variables examined included debt management failures (psycho-behavioral), locus of control (psychological), impulsivity (psychological), status/materialism (social) and financial anxiety (psychological). Our findings show that self-control failures in combination with poor debt management practices and financial anxiety lead to higher credit card debt. Self-control failures in the form of debt-extending financial management practices and materialistic/status seeking tendencies contributed most in our model.

INTRODUCTION

Managing internal self-control mechanisms has important ramifications for individual and societal welfare and represents one of the most important decision domains in consumer behavior (Gal & Lui, 2011; Ponchio & Aranha, 2008). Broadly, self-control is a stable personality trait associated with the capacity to resist temptation, maintain self-discipline, and break harmful habits (Baumeister, 2002; Tangney, Baumeister, & Boone, 2004). Research shows that consumers exhibiting higher levels of self-control are better able to manage their judgments, regulate their emotions, and resist buying and consumption impulses (Baumeister, Bratslavsky, Muraven, & Tice, 1998; de Ridder *et al.,* 2012). This internal regulation process is particularly challenging for individuals susceptible to materialistic and/or status driven purchasing tendencies (Eastman, Iyer, & Thomas, 2013; Eastman & Iyer, 2012), increasing the frequency and magnitude of their self-control lapses (Bernthal, Crockett, & Rose, 2005; Chaudhuri, Mazumdar, & Ghoshal, 2011). Self-control theory is receiving increased research attention for explaining why consumers resist or succumb to buying urges, and especially those that require taking on additional financial debt (Wilcox , Block, & Eisenstein, 2011)

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Self-control failures in the form of materialistic, status-seeking, or impulsive-driven credit card purchases are especially problematic for college students and are the result of irrational decision making stemming from a buy now, pay later mentality associated with credit card purchases (Amar, Ariely, Ayal, Cryder, & Rick, 2011; Bearden & Haws, 2012). Such failures impact not only the actual debt outcomes that these impulses may produce, but also the emotional and mental state wrought by these decisions (Gal & Liu, 2011). The consequences of high rate student debt and debt-shifting activities are often severe (Norvilitis, Szablicki, & Wilson, 2003; Robb & Pinto, 2010). Students with high debt report daily emotional stress, low self-esteem, decreased confidence in managing economic resources, and diminished psychological well-being (Goetz, Cude, Nielsen, Chatterjee, & Mimura, 2011). These psychosocial outcomes lead to greater default on student loans, bankruptcies, damaged credit history, lower employment, success, and, in some cases, attempted suicides (Berg *et al.,* 2010; Compton & Pfau, 2004).

Understanding the significance of these issues, public policy makers and scholars have called for research that examines the factors that impact risky credit card use by college students and how to protect and educate vulnerable student consumers (Slowik, 2012). Recent studies have investigated issues such as impulsivity (Pinto & Mansfield, 2006; Wang & Xiao, 2009), social status and materialism (Limbu , Huhmann, & Peterson, 2012), financial anxiety (Nga, Yong, & Sellappan,

2011), and locus of control (Pirog & Roberts, 2007). Despite this growing stream of research, lacking are comprehensive frameworks that investigate how the integration of behavioral and psychological processes contribute to risky credit behaviors of college students (Chudry, Foxall, & Pallister, 2011; Limbu *et al.*, 2012; Xiao, Tang, Serido, & Shim, 2011). Especially needed is integrative research investigating antecedent behavioral, psychological, and social conditions that motivate credit card use and abuse (Chan, Chau, & Chan, 2012; Peltier, Pomirleanu, Endres, & Markos, 2013).

The purpose of this study is to help fill this gap by examining how self-control lapses and the associated stressors impact card debt (Harrison, 2012; Limbu *et al.*, 2012; Pirog & Roberts, 2007). We extend the literature by studying these phenomena through the lens of behavioral, psychological, and social constructs, including (1) debt management control (psycho-behavioral), (2) locus of control (psychological), (3) impulsivity (psychological), (4) status/materialism (social) and (5) financial anxiety (psychological) and (5). We thus extend the self-control construct beyond traditional boundaries. We further contribute to the literature through an increased understanding that credit card debt is a function of multiple internal and external constructs. Our measures are highly reliable and impact total credit card debt. Our findings have important implication for helping students manage debt spending and debt reduction.

LITERATURE REVIEW AND MODEL DEVELOPMENT

Self-Control

Self-control is relevant to an extensive array of behaviors, including consumer buying processes. The extant literature for the most part finds that individuals with higher levels of self-control are better able to regulate their emotions, thereby resisting buying urges and potentially illogical decisions (Baumeister *et al.*, 1998). High self-control has been found to positively impact a variety of quality of life measures (Tangney, Baumeister, & Boone, 2004). Conversely, low self-control has been associated with many societal problems, including poor purchase decisions (de Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012). While low self-control individuals may withstand many of the buying urges confronting them, they find it difficult to control themselves all the time (Wenzel, Conner, & Kubiak, 2013). Because consumers are continually confronted with buying opportunities in-store, online, and elsewhere, those finding it harder to self-regulate are thus likely to have diminished resistance resources (Gal & Liu, 2011).

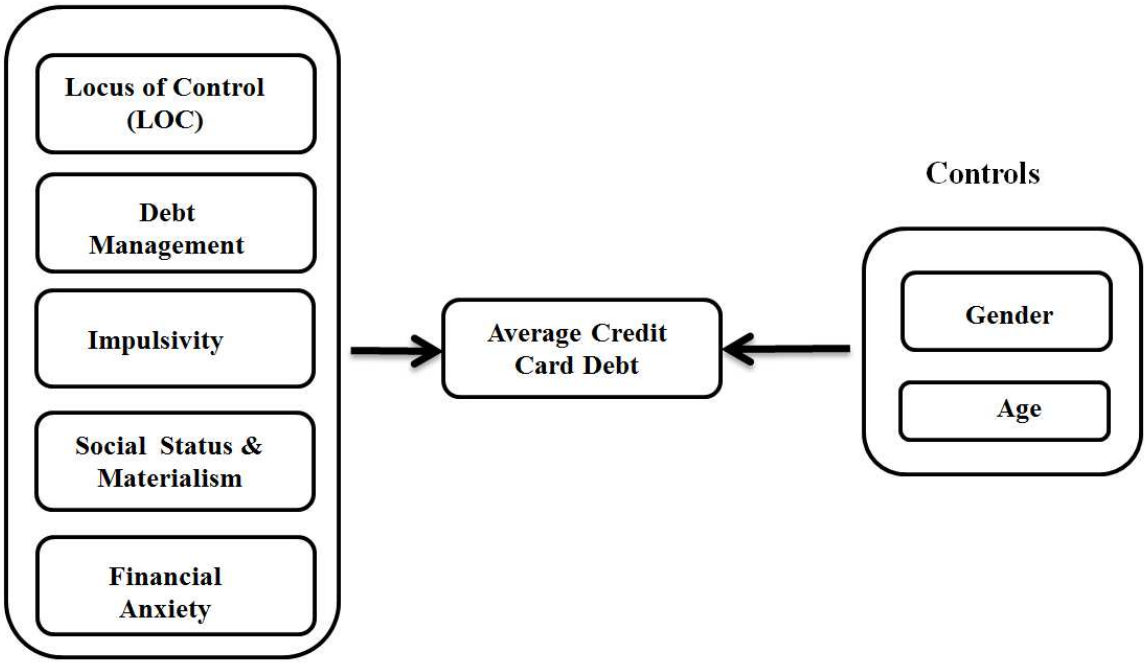
Although self-control is typically studied in terms of specific positive or negative outcomes, scholars and policy makers are increasingly interested in ”post-failure” decisions as a result of initial self-control breeches (Zemack-Rugar, Conner, & Kubiak, 2012). Investigating post-failure self-control behaviors is relevant for a number of reasons. First, a single self-control lapse represents only one in a series of potential decision failures (Dholakia, Gopinath, & Bagozzi, 2005). The Role of desires in sequential impulsive choices. For example, chronically high credit card debt is commonly the result of both impulsive buying opportunities and then the failure to pay off debt in a timely manner. Second, how consumers recover (or fail to recover) from initial self-control lapses are further amplified with associated psychological stressors (Mewse, Lea, & Wrapson, 2010).

We examine extant interdisciplinary research along with marketing literature to identify antecedents for both positive and negative credit card usage. We frame our antecedent variables from the perspective of self-control theory, showing how positive and negative self-regulation habits impact debt. As Figure 1 shows, the antecedent variables in our model include impulsivity, status/materialism, debt management, locus of control, and financial anxiety.

Impulsivity

Impulsive buying as a self-control mechanism has been characterized in terms of an aimless, less thoughtful and alluring decision making process (Lai, 2010; Rook & Fisher, 1995). Rook and Fisher (1995) argued that impulsivity is a character idiosyncrasy assisting critical preposition with brief attention for long-term

FIGURE 1:
Credit Card Model



results. Impulsive behavior can also be defined as abrupt and accidental buying behaviors initiated to achieve instant gratification beyond financial provision (Sengupta & Zhou, 2007; Thomas & Kolbe, 2012). The concept of instant gratification results in conflict between the desire to consume versus the discipline to battle temptation (Hoch & Loewenstein, 1991; Zhang & Shrum, 2009). Ease of credit card usage heightens the dexterity and eagerness to purchase items while setting aside financial burdens to a later date (Bernthal *et al.*, 2005; Verplanken & Sato, 2011). Point-of-purchase stimuli, logos, advertisements, discounts, product design, marketing channel innovation, and sale promotions are efforts to activate factors of impulsive behavior (Jones, Reynolds, Weun, & Beatty, 2003; McCall, Trombetta, & Gipe, 2004). College students often have low restraints and are more likely to be attracted to instant benefits (Baumeister, 2002; Strayhorn, 2002), and can effortlessly use their credit card without a prompt depletion of money (Soman, 2001). College students with high impulsive buying behaviors are going to uphold credit card use and charter insecure financial action (Mansfield, Pinto & Parente, 2004; Peltier *et al.*, 2013; Plunkett & Buehner, 2007).

H_1: Impulsivity is positively related to credit card debt.

Materialism/Social Status

Many consumers appraise themselves and others according to their possessions, lifestyles and social status (Bernthal *et al.*, 2005; Eastman & Iyer, 2013; Eastman, Iyer, & Thomas, 2013). A need for respect, favorable in-group considerations, and envy from others impact status consumption, often in the form of conspicuous purchases made to increase the likelihood of social acceptance (Chaudhuri1 *et al.,* 2011; Gentina, 2014). Self-control failures are thus due to the inability to resist purchase urges driven by the need to belong or to convey one's persona to others (Peltier *et al.*, 2013). From a debt perspective, Ponchio & Aranha (2008) found that materialistic and status purchases are major predictors of the likelihood to installment payback plans, and especially for those with lower income. For some students, credit card usage is directly related to social status through the purchase of visible, material possessions (Limbu *et al.*, 2012); suggesting that students can establish and prolong social status by means of credit card use and

acquisition (Nga *et al.*, 2011; Roberts, 1998; Wang & Xiao, 2009). This social-self assimilation occurs through the purchase of physical items such as clothing, cosmetics, and other products and services that convey success and status (Robb & Pinto, 2010). Roberts & Jones (2001) found that students have a relationship with power, prestige, and excessive buying, which demonstrates how students purchase products to impress others. Students who sense profound social status through materialistic purchases view debt accrual as an investment decision instead of a flighty habit (Dwyer, McCloud, & Hodson, 2011).

H_2: Social Status/Materialism is positively related to credit card debt.

Debt Management

Research suggests that most people, including college students, underestimate potential debt accumulation (Amar *et al.*, 2011). Understanding how to manage debt is important because the majority of students are deficient in credit and money management (Goetz *et al.*, 2011), a deficiency that transfers beyond high school to college (Chen & Volpe, 1998). Students with superior debt management skills are less likely to accrue high credit card debt (Hayhoe, Leach, Turner & Lawrence, 2000) and are better at solving financial problems (Hogart, Hilgert, & Kolodinsky, 2004; Mansfield & Pinto, 2007).

We examine debt management from two interrelated perspectives - behavioral and psychological tendencies. Debt management from a behavioral standpoint relates to debt repayment activities (Amar *et al.*, 2011). Specifically, once credit card debt is accumulated, those with a greater propensity to make debt payments are likely to have lower long-term balances (Amar *et al.*, 2011; Navarro -Martinez *et al.*, 2011). Unfortunately, younger consumers tend to repay at lower rates than their parents (Jiang & Dunn, 2012). Relatedly, psychological elements of debt management focus on decision making and overspending when faced with the knowledge that further debt accumulation may be problematic (Sotiropoulos & d'Astous, 2013). High debt consumers may exhibit self-control losses through knowingly making irrational and uncomfortable credit purchases even when they know they cannot afford to go further into debt (Bearden & Haws, 2012; Haws, Bearden, & Nenkov, 2012). Combined, self-control lapses in the form of poor debt management are expected to increase average credit card balances when the immediate consequences of poor debt management decisions are ignored (Joireman, Kees, & Sprott, 2010).

H_3: Poor Debt Management is positively related to credit card debt.

Locus of Control

Locus of Control (LOC) refers to the tendency to interpret one's life outcomes on the basis of potential rewards and punishments (Rotter, 1966). There are two different types of LOC including internal locus of control and external locus of control. Internal LOC consumers feel in control of their behaviors, rewards, and losses (Hoffman, Novak, & Schlosser, 2003; Pinto *et al.*, 2004; Strickland, 1989). Attaining desired outcomes, accepting more responsibility for their actions, and using risk prevention strategies to minimize future losses are characteristics of an internal LOC consumer. Consumers with an external LOC orientation consider that their actions and outcomes are due to outside forces beyond their control. As a consequence, they more freely take charge of their lives through external controls and risk acceptance heuristics (i.e., consumption) in their daily lives (DeSarbo & Edwards, 1996; Kongsompong, 2006).

Limited research has examined how internals and externals differ on credit card attitudes and habits, and particularly with regard to college students (Wang, Wei, & Jiang, 2011). Conceptually, LOC students hold contrary perspectives of credit and money purchasing attitudes (Caputo, 2012; Xiao *et al.*, 2011). Externals tend to have more decisive behaviors toward money and credit, are less likely to be accountable for credit card purchases and shop compulsively, and accrue credit card debt faster (Caputo, 2012; Perry & Morris, 2005; Tokunga, 1993; Wang *et al.*, 2011). Externals are thus less risk adverse regarding debt accrual and carry higher balances than internals (Joo, Grable, & Bagwell, 2003; Plunkett & Buehner, 2007). LOC can be measured by credit card

attitudes in terms of the individual paying off the balance with other credit cards or other loans, hiding their debt from other people, buying items to represent their external self-expression, conforming spending habits to others in their social group, and paying back their deficit (Joo *et al.*, 2003; Xiao *et al.*, 2011; Watson, 2009).

H_4: Locus of Control is positively related to credit card debt.

Financial Anxiety

Financial anxiety is an attentive and innate emotional anxiety toward one's personal finances (Shapiro & Burchel, 2012). Shapiro & Burchel (2012) note that financial anxiety can be measured through abstract reports of financial patterns and is a definite construct of consumer anxiety and depression. Inordinate buying induces more anxiety (O'Guinn & Faber, 1989; Pinto *et al.*, 2004), provoking a phase of supplementary shopping in order to pacify ensuing stress (DeSarbo & Edwards, 1996). Excessive credit card debt has been linked to higher levels of consumer anxiety (Hayhoe *et al.*, 2000; Pinto *et al.*, 2004; Roberts & Pinto, 2001). Credit card debt has also been associated with high stress, indigent self-esteem, and an arbitrary state of mind (Compton & Pfau, 2004; Norvilitis *et al.*, 2003). Students with higher levels of financial stress may both regret their self-control failures yet feel anxiety in the form of their inability to curtail future credit card use (DeSarbo & Edwards, 1996).

H_5: Financial Anxiety is positively related to credit card debt.

RESEARCH METHOD

Sample

A total of 322 students enrolled in a marketing class at a Midwestern university participated in the study. The questionnaire was approved by the University's Institutional Review Board. Students were given extra credit for their participation, though none of their responses were linked to them. Table 1 provides the profile of respondents. Consistent with most beginning business courses, the sample had more males than females (57% vs. 43%) and most of the students were between 20-22 years old. The majority of students had access to one (66.7%) or two (23.9%) credit cards. While about half of these students pay-off their balance each month, almost 10% have balances over $500, consistent with risky credit behavior (Xiao *et al.*, 2011). Because debt levels tend to increase between student's junior and senior year, these debt balances are likely to go up for the sample as they near graduation (Ha, 2013).

TABLE 1:
Respondent Profile

Gender:	
Male	57%
Female	43%
Age:	
18-20	41.7%
21	31.0%
22	14.6%
23-25	7.6%
26+	5.1%
Number of Credit Cards:	
One	66.7%
Two	23.9%
Three	5.7%
Four or More	3.8%
Total Credit Card Balance:	
Pay balance each month	50.3%
$1–$249	23.0%
$250-499	17.4%
$500-1,000	6.2%
>$1,000	3.1%

Measure Development

A literature review was conducted to identify the behavioral, psychological, and sociological dimensions to include in the study. Most of the questions, although original, were adapted from the literature and were measured via a five-point scale ranging from 1 = "strongly disagree" to 5 = "strongly agree." The

dependent measure was self-reported monthly credit balance carried.

Locus of Control (α = .94). Five item measure adapted from Rotter (1966), Roberts & Pinto (2001), Pirog & Roberts (2007), Nga *et al.* (2011).

Social Status and Materialism (α = .81). Four item measure adapted from Nga *et al.* (2011).

Financial Anxiety (α = .80). Seven item measure adapted from Roberts & Pinto. (2001), Nga *et al.* (2011), Pinto *et al.* (2004).

Debt Management (α = .80). Six item measure adapted from Peltier *et al.* (2013).

Impulsivity (α = .73). Three item measure adapted from Rook & Fisher (1995), Pirog & Roberts (2007), Nga *et al.* (2011), Wang *et al.* (2009).

RESULTS

Dimensionality and Reliability

To verify dimensionality, the data were subjected an exploratory principal components factor analysis (Varimax). Those with factor loadings under .40 or that loaded on multiple dimensions were eliminated. The resulting dimensions and items were then evaluated for reliability via an item-to-total correlation analysis. Items with low item-to-total correlations were removed from the analysis. Based on the literature review, we hypothesized five psycho-social-behaviors dimensions, which were supported by the data. All dimension's had coefficient alphas exceeding the criterion level of .70 (Nunnally, 1978). The average communality across all the items was .687 and the factor loadings sufficiently high, indicating that the sample of 322 students is acceptable for determining dimensionality (for a review MacCallum, Widaman, Zhang, & Hong, 1999).

Hypothesis Testing

Using multiple regression, the factor scores for each of the five psycho-social-behavioral dimensions were used as independent variables and regressed against average monthly balance. All five of the dimensions significantly impacted the level of debt carried by respondents (R^2 = .200, F = 15.7, p = .000) and in the hypothesized direction, supporting H1-H5 (Table 3). In terms of variance explained, poor debt management had the greatest impact on credit card debt (Std β = .324, t=6.4, p < .001). Status and materialism had the second highest impact (Std β = .200, t=4.0, p < .001), followed by financial anxiety (Std β = .160, t=3.2, p < .01), locus of control (Std β = .135, t=2.7, p < .01), and impulsivity (Std β = .102, t=2.0, p < .05). We repeated the multiple regression analysis using gender and age as control variables. Neither gender nor age was significant. All of the dimensions remained significant and in the same relative order of their impact on average monthly balance.

DISCUSSION AND CONCLUSION

Responding to calls for research examining self -control lapses and credit card debt by vulnerable populations (Peltier *et al.*, 2013; Xiao *et al.*, 2011), our findings offer insight into psychosocial-behavioral antecedents poor decision making on the part of students. Specifically, all four of our self-control variables and financial anxiety had a significant impact on how much debt students carried on their credit cards. Individually, our results corroborate the emerging credit card research showing that external LOC, impulsivity, social status, financial anxiety, and poor debt management lead to higher credit card balances. Collectively we extend the self-control literature by showing that all of these variables impact credit card debt when considered jointly. However, because our sample was limited to one university, validation research is needed to examine this framework in other educational contexts.

A self-control failure in the form of poor debt management was the single highest predictor of credit card debt. Because students tend to lack credit and money management skills, it is critical to build their financial skills early on in their lives (Goetz *et al.*, 2011). For example, parental involvement is a positive mechanism for preparing students for prudent credit card use while attending college (Xiao *et al.*, 2011). Importantly, positive and frequent parental involvement in both the pre- and post-acquisition credit card stages is associated with

TABLE 2:
Factor Loadings and Coefficient Alphas

	LOC	Debt Management	Financial Anxiety	Impulsivity	Status
I have had to use a payday loan to pay my credit card debt.	.915				
I have had to ask my family for money to pay my credit card debt.	.868				
I have had to use a bank loan to pay of my credit card debt .	.832				
I pay credit card balance(s) off with another credit card(s).	.816				
I use my credit card to keep up with my friend's spending habits.	.702				
I "don't" pay credit cards off in full each month (Reversed)		.820			
I typically only pay the minimum balance.		.648			
I use my credit card knowing I don't have the money.		.625			
I often max out my credit card limit.		.623			
I have bought things even thought I couldn't afford them.		.511			
I am uncomfortable with the amount of debt I have.		.487			
Having a credit card makes me feel anxious.			.867		
I look back and regret making credit card purchases.			.765		
I am worried about my credit card spending.			.601		
I am more impulsive when I shop with credit cards.				.770	
With my credit card I buy what I want when I want it.				.768	
I am more likely to buy something if I can pay for it with a credit card.				.752	
I buy items with my credit card to impress people.					.729
Credit cards allow me to express myself to others.					.723
Credit cards are symbols of wealth and prosperity.					.567
What I see on television influences my credit card use.					.460
Variance Explained	20.8%	13.8%	11.8%	11.1%	10.9%
Coefficient Alpha	.94	.80	.80	.73	.81

TABLE 3a:
Multiple Regression Analysis

	Hypothesis	Standardized Beta	T-Value	Sig
(Constant)			34.131	.001
Impulsivity	H_1	.102	2.027	.05
Status	H_2	.200	3.970	.01
Debt Management	H_3	.324	6.426	.001
LOC	H_4	.135	2.682	.01
Anxiety	H_5	.160	3.169	.01
R-Square = .20, F = 15.7, p < .001				

TABLE 3b:
Multiple Regression Analysis With Gender/Age Controls

	Hypothesis	Standardized Beta	T-Value	Sig
(Constant)			6.2	.000
Impulsivity	H1	.108	2.1	.05
Status	H2	.209	4.0	.001
Debt Management	H3	.304	5.8	.001
LOC	H4	.135	2.6	.01
Anxiety	H5	.163	3.1	.001
Gender (Male =1)		.047	.86	ns
Age		.025	.45	ns
R-Square = .20, F = 10.8, p < .001				

lower credit card balances (Limbu *et al.*, 2012; Norvilitis & MacLean, 2010). Educational institutions from K-12 through college graduation must play an active role in informing students about the dangers of high debt levels, and appropriate debt management and reduction skills (Sotiropoulos *et al.*, 2013); possibly in the form of required classes and/or as part of the first-year college experience.

Our research also shows that getting into debt is a function of self-control failures through the acquisition of products and services to gain social status and vis-à-vis materialistic decision making processes. Our findings thus lend support to recent work by Chaudhuri *et al.* (2011) and Limbu *et al.* (2012) linking self-control to materialistic purchase behaviors. Aspirational behavior is often induced via a broad swath of media and advertising. Because college students often must deal with social demands, additional research is needed that offers a broader framework for understanding the role of social pressure in student debt accrual. As with debt management, parental involvement is likely to be an important moderator of the relationship between social status and debt accrual (Norvilitis & MacLean, 2010; Yu, 2011). Research is thus needed that offers greater insight into the role that families play in mitigating how negative social influences impact student debt.

Impulsivity, a lapse in the ability to control buying urges, was positively related to credit card debt in our study. Combined with poor debt management skills, student access to the easy use of credit increased their willingness to nurture self-control losses by forgoing future financial obligations to satisfy their immediate buying needs (Verplanken & Sato, 2011). At the same time marketers often make it easy for students to act on poor self-control decisions at both the credit card acquisition and card usage stages through low introductory offers and short -term deals (Nga *et al.*, 2011). Future research that investigates how students may resist personal and marketer temptations is thus warranted.

Our findings also underscore the notion that active behavioral controls and extending to a future point in time (payments) is a predictor of student debt. Termed locus of control, students with an external orientation were more likely to transfer debt from one credit account to another, leading to greater debt. Unfortunately, this also means that students with an external orientation are less risk adverse when it comes to carrying higher balances (Xiao *et al.*, 2011). Additional research is needed to identify ways to motivate students to act more responsibly when it comes to paying off their debts and to become more internal-oriented related to their credit card decision making practices (Caputo, 2012).

Lastly, we found that financial anxiety leads to higher credit card debt. In many ways financial anxiety leads to a cycle of shopping and self-control failures as a means of alleviating ensuing stress. In particular, students who have financial stressors continue to use their credit card, often through LOC and poor debt management. A possible limitation of our study is that we investigated financial anxiety as a precursor to debt. Future research should thus investigate the extent to which financial anxiety is an antecedent or consequence of high debt and whether it has both pre- and post-debt dimensions.

Our study examined credit card debt as a function of five independent psycho-social-behavioral constructs. We thus encourage research that investigates student credit card debt in non-linear, interactive and other more complex models. Specifically, how do lapses in self-control in one psycho-social-behavioral dimension impact other self-control losses. For example, does social status lead to more impulsive decision-making (or vice-versa)? Understanding the direct and indirect paths to explaining credit card debt and the consequences of that debt offers considerable theoretical and applied insights.

For public policy makers and marketing managers our findings continue to shine a light on the need to protect vulnerable consumers, and especially younger consumers. Passed in 2009, the Accountability, Responsibility, and Disclosure Act (CARD) prohibits companies from issuing credit cards to those under 21 without evidence of the ability to pay or have a co-signer and restricts companies from giving away free gifts as part of on campus marketing practices, bars credit bureaus from disclosing student contact information for mail and other marketing efforts, and mandates disclosure of contracts pertaining or agreements regarding credit card marketing (Peltier et al., 2013). Unfortunately, this law has had only a limited impact on the number of credit cards students gain access to and the reduction of marketing targeting this vulnerable decision group (Hawkins, 2012). As such, additional research is needed on how to protect young consumers and the role that ethical marketing practices play in this process. Of particular interest is a better understanding of how marketing managers may profitably follow the principles of the "triple bottom line," which is based on the notions that profits are measured not only in terms of income, but also the value of social capital and quality of life.

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LINKING CUSTOMER RELATIONSHIP MANAGEMENT (CRM) PROCESSES TO SALES PERFORMANCE: THE ROLE OF CRM TECHNOLOGY EFFECTIVENESS

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In this paper the authors develop and empirically test a model of customer relationship management (CRM) technology effectiveness. The model considers the effect a selling firm's customer relationship initiation and customer relationship maintenance processes has on its CRM technology effectiveness and subsequently the firm's sales performance. The conceptual model is tested by conducting Structural Equations Modeling (SEM) of a cross-industry data set collected from 1,227 managers. Results indicate firms that successfully implement customer relationship initiation and customer relationship maintenance processes are much more effective with their CRM technology use than firms that do not have such processes in place. Further, the results of this paper suggest that the positive effect a firm's customer relationship initiation and maintenance processes has on firm performance can be partially explained by an increase in the effectiveness of its CRM technology use. Implications for these findings as well as directions for future research are provided.

INTRODUCTION

Managing a sales force remains a key challenge for middle- and top-level management. Some examples of the quandaries that managers are faced with include leading a more complex work environment, hiring, training, and retaining competent people, an ever-evolving customer buying process, technology influences (e.g., CRM systems and social media) on the sales process, and increasing customer expectations (e.g., Adamson, Dixon, & Toman, 2012; Colletti & Fiss, 2006; Jones, Brown, Zoltners, & Weitz, 2005; Trailer & Dickie, 2006; Verbeke, Dietz, & Verwaal, 2011). Because of these and other issues the sales function is undergoing an unsurpassed transformation, driven by a plethora of changing circumstances (Leigh & Marshall, 2001).

Piercy (2010, p.349) further lamented that "the pressures on traditional sales organizations from new types of relationship- and value-based marketing strategies...and above all new and higher requirements from customers for service and relational investments mandate a fundamental change." One of the most substantial changes in this new landscape is the growing importance of technological resources in the sales cycle (Trainor, Andzulis, Rapp, & Agnihotri, 2013). Sales forces are now armed with customer relationship management (CRM) technologies which include traditional sales force automation technology (SFA) as well as social CRM provisions such as LinkedIn, Chatter and SlideShare (Trainor et al., 2013). An important question for both sales practitioners and academicians to consider is: What can firms do to best manage the sales force to maximize its effective use of such CRM technology?

The purpose of this paper is to address this question, by examining the role institutionalized customer relationship management (CRM) processes play in leading to the effective use of CRM technology. Specifically, the links between customer relationship initiation processes, customer relationship maintenance processes and CRM technology effectiveness is examined. Additionally, the link between CRM technology effectiveness and firm sales

The Marketing Management Journal
Volume 24, Issue 2, Pages 162-171

performance is also considered. These theoretical predictions are tested utilizing Structural Equations Modeling (SEM) of data collected from a global and industry diverse set of 1,227 sales managers.

There are several important contributions of this research. First, this research conceptualizes and measures CRM technology effectiveness. This represents a contribution beyond published research in the area which traditionally examines CRM technology use but yet fails to consider the efficacy of such technology use. Second, this research goes beyond examining the antecedents and consequences of CRM technology use by examining the factors that lead to and the implication of the *effective* use of CRM technology by the sales force. Third, by using data from such a diverse sample of sales managers we provide important generalizability to research in the area. Finally, we provide additional evidence to the importance of firms institutionalizing customer relationship initiation and customer relationship maintenance processes. We do this by linking such processes to firm sales performance by including the mediating variable CRM technology effectiveness in the theoretical model.

The manuscript is organized as follows: next the concept of *CRM technology effectiveness* is introduced. Following this the conceptual model is presented and formalized research hypotheses are developed. The research methodology, data analysis, and results are subsequently addressed. Finally, the manuscript is concluded with a discussion of the results and directions for future research.

CRM Technology

The term CRM technology is broadly defined as "a suite of IT (*information technology*) solutions designed to support the CRM process (Jayachandran, Sharma, Kaufman, & Raman, 2005). CRM technology is used to track customers and remain relevant with their needs. Substantial research has examined how and why sales representatives adopt and utilize such technologies (e.g., Chang, Park, & Chaiy, 2010; Jelinek, Ahearne, Mathieu, & Schillewaert, 2006; Speier & Venkatesh, 2002). Research however, has yet to examine the institutional level factors that lead to the effective use of CRM technologies. Therefore, a better understanding of what firms can do to optimize the deployment of CRM technology is needed.
Similar to prior work in the area (Kim, Suh, & Hwang, 2002; Trainor et al., 2013) *CRM Technology Effectiveness* is defined as a firm's competency in utilizing CRM technologies to build and maintain relationships with customers. The word 'customer' refers to both individuals who are engaged in an active exchange relationship with the firm as well as prospective customer (i.e., prospects). Unlike prior research that examines the role of CRM technology use on the link between sales processes and sales performance (e.g., Jayachandran et al., 2005); we consider the antecedents and consequences of CRM technology effectiveness. This is important because it goes beyond simply examining why individual sales managers and representatives use CRM technology. Rather, a better understanding of the factors that lead to the *effective* use of CRM technology is sought here.

Customer Relationship Management

Grounded in the relationship marketing literature, the theoretical foundation of CRM suggests that establishing and maintaining long term customer relationships is at the core of the 'marketing concept' (Morgan & Hunt, 1994). Customer relationship management can be conceptualized as a process which involves the proactive management of relationships from beginning to end (Reinartz, Krafft, & Hoyer, 2004). Just as products have life-cycles, so too does the relationship between customer and company. Successful customer relationship management requires the utilization of different components of the CRM process at different stages of the customer life-cycle. During prospecting, or relationship initiation stage for example, firms must focus on processes which facilitate customer acquisition. During the relationship maintenance stage, firms must focus on retention, cross selling and referral management. Finally, at the relationship termination stage firms must actively work to cease relationships with unprofitable customers (Reinartz et al., 2004).

In this paper we focus on the first two stages of the CRM process: customer relationship

initiation processes and customer relationship maintenance processes. We predict firms that deploy rigorous customer relationship initiation and maintenance processes will be more effective in their utilization of CRM technology resources. The formal hypotheses are developed in the subsequent section. Figure 1 depicts our conceptual model.

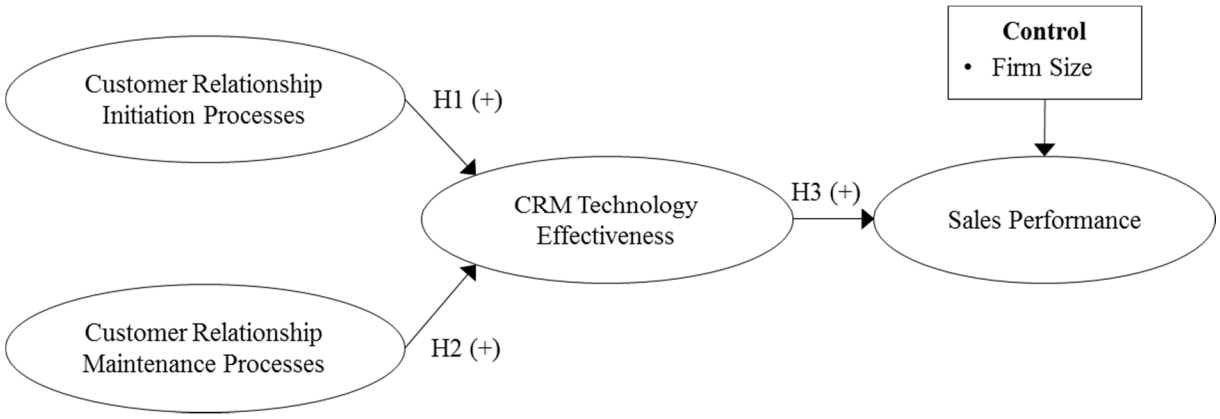
Customer Relationship Initiation Processes

A core principal of sales and marketing is that while individuals within a selling organization (i.e., account executives) may develop close relationships with customers, the customer's purchase will eventually be serviced by the entire selling firm. Robust processes ensure that customer-firm relationships endure even though salespeople may be promoted or turnover. Selling today involves complex solution-based offerings that often involve more than one business function. This complexity suggests sales can be considered a cross-functional, strategic process rather than predicated on a lone salesperson (Storbacka, Ryals, Davies, & Nenonen, 2009). Process-oriented approaches advocate a conscious management of the relationship initiation by establishing process-dependent measures and criteria. This view calls for deployment of defined processes for creation and maintenance of relationships with the buying firm that transcend the individual salesperson. In this scenario, salespersons may be role carriers – a medium that implement these processes.

Similar to Reinartz et al. (2004), we define *customer relationship initiation processes* as the systematic approach firms utilize to create relationships with new customers. During initiation, the main goal is to attract new prospects through the use of various offers to incite a purchase. When working to create new relationships in the market, the entire organization, notably the sales and marketing teams, should be aligned in a) choosing the target customer firms, b) assessing the customers' wants and needs, and c) responding to both marketing and sales generated leads (Sabnis, Chatterjee, Grewal, & Lilien, 2013). Research further suggests that alignment between the sales and marketing functions is particularly important at the relationship initiation stage as valuable leads are often lost when there is a misalignment between these two functions (Sabnis et al., 2013). A selling organization can ensure such alignment by putting in place a formal relationship initiation process. Such a process will establish common criteria or expectations in terms of how all members of the organization (e.g., marketing personnel and sales personnel) utilize the firm's CRM technology. This consistency should enhance the performance of a firm's CRM technology. Thus, it is predicted here that a firm's customer relationship initiation processes will have a positive effect on CRM technology effectiveness.

H_1: Relationship initiation processes will have a positive effect on CRM technology effectiveness.

FIGURE 1:
A model of CRM Technology Effectiveness



Customer Relationship Maintenance Processes

Relationship maintenance processes is defined as the mechanisms firms deploy to nurture and strengthen the relationships they have with existing customers (Reinartz et al., 2004). Due to customers' previous purchases, the goal of the firm is often to up-sell and cross-sell their products or services with new customized, individualized offers. Process-based management of key relationships ensures smooth two-way communications between the selling and the buying firm at various levels. This, in turn, fosters a solution-based sales approach, leading to inter-firm value on an ongoing basis. A formal relationship maintenance process requires the selling firm to continually review the results of the solutions with strategic customers. Relationship maintenance processes also help track the quality and extent of relationships and dialog at the highest executive levels with all strategic accounts.

Relationship maintenance processes involve a continual dialog with the customer. This not only provides the selling firm with multiple touch points with the customer, but also with multiple data points to include in their CRM databases. The capabilities of CRM technology are limited by the quantity and quality of data available in the system (Jayachandran et al., 2005). Formalized relationship maintenance processes should ensure that the data available in a firm's CRM system is current and accurate. Considering the importance of such data integrity to the effectiveness of CRM technology, Hypotheses 2 is put forth:

H_2: Relationship maintenance processes will have a positive effect on CRM technology effectiveness.

CRM Technology Effectiveness and Sales Performance

Competent salespeople and processes are both key to effective firm performance; however, in the fast-paced, changing market place, access to timely and accurate information can make the difference between a converted sale and a missed opportunity. Insightful, specific and credible information detailing customers is one of the best supports for sustained firm performance when one considers that processes can be easily replicated and competent salespersons easily poached by the competition. This suggests that the effective use of CRM technology may be a particularly important antecedent of sales performance.

In a study using data collected from the sales force of a pharmaceutical firm, Ahearne, Jones, Rapp, &Mathieu (2008) demonstrated that technology use by salespeople influences performance in terms of the percentage of sales quota achieved. This positive effect was achieved through salesperson behaviors that improved customer service via salesperson knowledge and adaptability. The focal pharmaceutical firm used a customized version of the Siebel Pharma Sales software. Ahearne et al. (2008) reported that the software is designed to facilitate the salesperson on all important tasks – from planning a sales call, to post call reporting, to coordinating with the sales manager, to acquiring product updates. Other studies on use of Sales Cloud, a brand of sales force automation (SFA), and customer relationship management (CRM) converge on similar findings. Rapp, Agnihotri, &Forbes (2008) found that salespersons using SFA and CRM – technological provisions – were able to save effort in terms of hours of work for similar results, and also improve adaptive selling behavior. In another study, Ko &Dennis (2004) confirmed that the use of knowledge management-based SFA improves sales performance – the more knowledge the salespersons had the more likely they were to exceed their sales quota. In summary, we expect the effective use of CRM technology (CRM technology effectiveness) to be positively related for sales performance in sales organizations.

H_3: CRM technology effectiveness has a positive effect on sales performance.

METHODOLOGY

Sample

To examine our hypotheses, we used data gathered in conjunction with Miller Heiman, a global leader in sales performance consulting. After participation in the survey, respondents

received an executive summary of the results, as well as a copy of the findings from the previous year's study. Respondents were invited to participate via email invitations. Of the 13,041 individuals invited to participate in the study, 1,891 (14.5 percent) completed the survey. Of these 1,891 respondents, 1,227 respondents indicated that their sales process was "complex", involving at least three buying influences. These were the only ones considered for inclusion in the study. To assess non-response bias (Armstrong & Overton, 1977), early and late respondent means were compared and this analysis yielded no significant differences between the respondents. Respondents came from a variety of industries, see Table 1. Notable representations (7% or more in each category) were from the consulting and professional services, technology -software, and manufacturing sectors. Business services, technology-services, technology–hardware, industrial and chemical, construction, and oil/gas sectors were also adequately represented (4% to 7%). Twenty other industries comprised the rest of the sample. Approximately 49% of the respondents worked in organizations that employed 24 or fewer salespeople: 20.4% for those employing 25-99 salespeople, 15% for those employing 100-499 salespeople, and15.9% for those employing more than 500 salespeople.

The sample is globally represented with respondents coming from firms headquartered in 40 different countries. Australia, the United Kingdom, Germany, and Canada were sizably represented, with respondents from the Unites States comprising 47.4%. Males comprised 85.5% of the sample. Typically, the respondents were business executives in revenue-generating roles across job functions. Sales vice presidents and sales directors comprised the largest percentage of respondents in the sample (26.4%), followed by sales managers (17.6%). Other categories of respondents who represented more than 5% of the sample were business development managers (13.1%), sales representatives (7.2%), presidents (8.1%), C-level executives (9.8%), and account managers (6.4%). A breakdown of respondents by job title is contained in Table 2.

TABLE 1:
Industry Data

Industry	Percent
Aerospace and Defense	2.5
Banking	1.5
Business Services	6.3
Construction	4.2
Consulting & Professional Services	9.9
Consumer Products	2.0
Education	1.5
Energy	1.4
Financial Services	3.2
Food Service	1.6
Government	1.6
Healthcare - Capital	3.3
Healthcare - Consumables	2.4
Healthcare - Services	2.3
Hospitality	.6
Industrial & Chemical	4.7
Insurance	2.3
Manufacturing	8.1
Media	1.9
Oil/Gas	4.1
Pharmaceuticals	2.3
Technology - Hardware	4.9
Technology - Services	5.9
Technology - Software	8.9
Telecommunications - Equipment	2.3
Telecommunications - Services	3.1
Transportation	3.3
Utilities	1.0
Wholesale	1.5
Missing	1.2
Total	**100.0**

TABLE 2:
Respondent Job Titles

Job Description	Percent
C-Level Executive	9.8
President/GM	8.1
Sales VP/Director	26.4
Sales Manager	17.6
Sales Representative	7.2
Marketing	2.9
Training	3.4
Human Resources	1.1
Business Development	13.1
Account Management	6.4
Sales Operations	3.3
Customer/Client Service	.7
System	.1
Total	**100.0**

Measures

For the data analysis, we followed standard procedure (Churchill, 1979; Churchill & Peter, 1984) and utilized multiple indicators for each variable to ensure sufficient representation of the construct domains. To measure the constructs *customer relationship initiation processes* and *customer relationship maintenance processes* we used 3 and 4 items, respectively. These items are similar to those used by Reinartz et al. (2004). *CRM technology effectiveness* represents a new construct to the literature and is measured using four items available in the data set. Finally, we utilized five available items in the data set to measure the sales performance construct. These items can each be found in Table 3.

Data Analysis

Adopting generally-accepted psychometric methods (Anderson & Gerbing, 1988), we followed a two-step approach. First, a confirmatory factor analysis (CFA) was specified in Amos 20.0 including the 16 items which represent the study's four constructs. The fit indices of the CFA provide initial evidence to the validity of the study constructs (χ^2 (df) = 432 (98), $p < .001$, GFI = 0.96, CFI = 0.97, NFI= 0.86, RMSEA = 0.053). Importantly, all but two standardized factor loadings exceed .6.

TABLE 3:
Measurement Items and Factor Loadings

		loading
Customer Relationship Initiation Processes		
1	Sales and Marketing are aligned in what our customers want and need	.87
2	Sales and Marketing are aligned in the types of prospects to target	.88
3	We have a formalized value proposition that is very compelling to our prospects	.54
Customer Relationship Maintenance Processes		
1	We always review the results of our solution with strategic accounts	.73
2	When we lose a strategic account, we always know the reasons why	.63
3	We jointly set long-term objectives with our strategic accounts	.80
4	We have relationships and dialog at the highest executive levels with all our strategic accounts	.75
CRM Technology Effectiveness		
1	Our sales management team is highly confident in the data available from our CRM system	.78
2	Our CRM system significantly improves the productivity of our salespeople	.93
3	Our CRM system significantly improves our ability to prepare for interactions with our customers	.94
4	Our CRM system is highly effective for enabling our organization to collaborate across departments	.85
Sales Performance		
1	Compared to last year, our productivity per salesperson has:	.77
2	Compared to last year, our average account billing (or average purchase per customer) has:	.69
3	In terms of revenue, how well is your sales organization currently performing compared to last year?	.81
4	Compared to last year, quota achievement for our sales force has:	.71
5	Compared to last year, the number of qualified opportunities/leads has:	.56

Fit Indices (CFA): CFI = .97; NFI = .86; GFI = .96 RMSEA = .053

Additionally, evidence of convergent validity is provided as the average variance extracted (AVE) of each construct is greater than .50 (Bagozzi & Yi, 1988; Fornell & Larcker, 1981). Each construct yielded a Cronbach's alpha score above .70 providing evidence for the reliability of the scales. Finally, to ensure discriminant validity the protocol outlined by Fornell and Larcker (1981) was utilized. The average variance extracted (AVE) of each construct exceeded the squared correlation of each pair of constructs indicating the constructs are different. The factor loadings of each individual item can be found in Table 3. Table 4 contains the descriptive statistics, construct reliabilities and average variance extracted of each construct as well as the correlations between the constructs.

Hypotheses Testing

To test the hypotheses the data were fit to the conceptual model using Structural Equations Modeling (SEM). To assess the degree to which CRM technology effectiveness mediates the relationship between the process variables and performance, direct paths between the two exogenous variables and sales performance were also included (Iacobucci, Saldanha, & Deng, 2007). Additionally, firm size was included as a control variable in the model to account for any systemic effect company size may have on sales performance.

The fit indices of the structural model are ($\chi 2$ (df) = 585 (99), $p < .001$, GFI = 0.95, CFI = 0.95, NFI= 0.94, RMSEA = 0.063), which indicate good overall model fit. The individual path coefficient between customer relationship initiation processes and CRM technology effectiveness is significant ($\beta = .33$. $p < .01$) providing support for Hypotheses 1. Next, the path between customer relationship maintenance processes and CRM technology effectiveness is significant ($\beta = .23$. $p < .01$) lending support to Hypothesis 2. In support of Hypothesis 3, the path between CRM technology effectiveness and sales performance is significant ($\beta = .13$. $p < .01$). The path between the control variable firm size and sales performance is not significant ($p > .05$).

The direct (unmediated) path between customer relationship initiation processes and sales performance is significant ($\beta = .12$. $p < .05$). Additionally, the direct (unmediated) path between customer relationship maintenance processes and sales performance is also significant ($\beta = .12$. $p < .05$). Empirically, this indicates that CRM technology effectiveness partially mediates the relationship between customer relationship processes and sales performance (Iacobucci et al., 2007). Implications of this are discussed subsequently.

DISCUSSION

The conceptual model proposed and empirically tested indicates the degree to which firms deploy formalized customer relationship initiation and customer relationship maintenance processes has a significant and positive effect on CRM technology effectiveness. This is important because while prior research has examined many of the antecedents to CRM technology use, limited research has considered the factors that lead to the *effective* use of CRM technology by sales organizations. By formalizing customer

TABLE 4:
Correlation Matrix and Descriptive Statistics of Study Measures

Variable	M	SD	CR	AVE	1	2	3	4	5
1. Relationship Initiation Processes	4.75	1.25	.80	.54	1				
2. Relationship Maintenance Processes	4.81	1.20	.82	.61	.40*	1			
3. CRM Technology Effectiveness	4.01	1.54	.93	.77	.40*	.34*	1		
4. Firm Performance	4.79	1.39	.83	.51	.19*	.16*	.20*	1	
5. Firm Size	3.09	2.20	---	---	-.20*	.12	-.02	.08	1

Note: * correlations significant at $p < .01$

relationship management processes at various stages of the customer life-cycle, firms can help ensure the capabilities of CRM technology provisions are being fully capitalized. This is especially important considering the pressure managers face in financially justifying large investments such as the investments required to acquire and maintain CRM technology (Jayachandra et al., 2005).

Collecting data from multiple contact points with customers is only useful if the data is stored and used by members of the firm. Merely having CRM technology does not ensure that it will deliver value. Value occurs when the salesperson is able to communicate and collaborate with others, especially with customers. This focus on the customer from a relational view, rather than a transactional one, is the foundational premise of having and successfully using a CRM technology. The scant empirical findings about the moderating impact of CRM technology on performance have been inconclusive thus far (Ernst, Hoyer, Krafft, & Krieger, 2011). Our analysis however, suggests that how well a firm effectively uses their implemented CRM technology leads to increased sales performance.

Members of a firm's sales force are the boundary spanning agents of the firm; they are responsible for building relationships with customers which in turn, ultimately enhances firm revenues. The close relationships developed between customers and salespeople can represent a potential risk if a salesperson leaves the selling organization (Palmatier, Scheer, &Steenkamp, 2007), or simply is not available at that precise moment to interact with the customer. The model presented here suggests that companies can mitigate this risk by developing robust customer relationship initiation and customer relationship maintenance processes. The analyses suggest that these firm-controlled processes have a positive effect on performance through their effect on the CRM technology effectiveness.

An essential goal of CRM technology is to enable salespeople and marketers to improve client facing efficiency and effectiveness (Sharma & Sheth, 2010), which leads to improve performance as evidenced in this study. Results from the study show that by pursuing a customer relationship initiation process, along with a relationship maintenance process it has positive effects on sales performance. The key is to have management convince the sales team of the importance that CRM technology plays in this course of action resulting in sales performance. Moreover, CRM technology effectiveness should be viewed as a tool to drive a customer-centric culture within the selling firm and it starts with prospect initiation and is carrier through the relationship maintenance process.

One other contribution of this paper is the generalizability of the findings. As Staelin, Ehret, & Johnston, (2005) noted, CRM research results tend to be rather idiosyncratic, and they called for a more cross-industrial and cross-cultural approach to CRM studies. Given the varied industries involved in this study, consulting, technology, construction, manufacturing, business services, (see Table 1) the results are robust from a commerce perspective. Additionally, with respondents from 40 differently countries, this allows the cultural nuances that Boulding et al., (2005) called for to permeate the data and findings.

Limitations and Directions for Future Research

There are several important limitations in this research which must be addressed. First, the cross-sectional survey design of the study limits our ability to make causal statements. That is, the dependent variable (firm sales performance) and mediating variable (CRM technology effectiveness) were gathered at the same time as the antecedent variables were collected. Therefore, it is possible that high performing firms are simply better able to utilize CRM technologies. To overcome this limitation, future research can test this research model using a longitudinal survey design when the antecedent variables are collected at one point in time and the dependent variable is collected at some later date.

A second limitation in this study is the parsimony of the conceptual model. While the model presented and empirically tested does simultaneously examine the effect of several factors on firm performance, it is possible that

important variables that affect firm performance were omitted from the model. Future research can address this limitation by continuing to examine in a holistic fashion the many factors related to sales management that can affect CRM technology effectiveness and firm performance. Despite these limitations this paper does provide a starting point in terms of examining the importance of customer relationship processes and CRM technology effectiveness in predicting firm sales performance.

Third, as noted earlier, only respondents who indicated that their sales process was "complex", (i.e., involving at least three buying influences) were included in this study. Therefore, generalizing the study's results to companies involved in simpler sales processes must be made with caution.

A further limitation of this study lies in the fact that the scale construction occurred with industry experts and by consulting existing literature. The dimensionality, reliability, and validity of the new measure CRM technology effectiveness has been set, future research could further study the construct by testing it in a single company. After gathering the quantitative data from one company and analyzing it, researchers could follow up with qualitative interview data in which the informants describe the activities and situations in which they used the CRM technology effectively. While our research has established that using CRM technology effectively leads to firm sales performance, what is yet to be understood are descriptive examples of some ways that salespeople use customer relationship initiation and maintenance processes through their CRM technology. This research paves the way for future scholars to ponder and qualitatively inquire into how a salesperson integrates customer relationship processes into the use of their CRM technology.

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THE INSPIRED SALESPERSON: LINKING SPIRITUALITY TO PERFORMANCE

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Despite the pervasiveness of spirituality, few empirical studies exist which assess its relationship with critical business outcomes such as performance. Recent research into inspiration suggests a linkage between sources of inspiration, such as spirituality, and the resulting motivation to accomplish goals. In this study, organizational commitment and spirituality are assessed as sources of inspiration, and inspiration's relationship with performance is also investigated. Thus, inspiration is positioned as a mediating variable. Additionally, the direct relationship of organizational commitment with performance is examined. Empirical results show that inspiration fully mediates the effect of both organizational commitment and spirituality on performance. A sample of salespeople employed at automobile dealerships in the southwest United States was used to test the model. Managerial and theoretical implications are discussed.

INTRODUCTION

Does the presence of spirituality affect performance in business organizations? Some scholars argue that spirituality can have a positive influence on performance in organizations (Hamel & Breen, 2007; Mitroff, & Denton, 1999). The "quest for spirituality" has been called "the megatrend of this era (Aburdene, 2007, p.4) and "a heightened sensitivity to spiritual concerns has become one of the defining characteristics of modern culture" (Emmons, 1999, p.4). Yet spirituality and the closely related concepts of religiousness (Zinnbauer, Pargament, & Scott, 1999, p. 900) (or religiosity) (Jackson & Bergeman, 2011, p. 150) and faith (Zinnbauer et al., p. 891; O'Grady & Richards, 2010, p. 57) have received limited attention in the sales and marketing literatures with the exception of a few studies that focus on its relationship with consumer behavior (Belk, Wallendorf, & Sherry, 1989; Muniz & Schau, 2005). Despite the conceptual arguments made to support a positive effect of spirituality on performance, empirical evidence is lacking to support this relationship.

It is important to understand how spirituality influences activities and outcomes in sales and marketing since "spiritual and religious goals, beliefs, and practices are central to many people's lives and are powerful influences on cognitions, affect, motivation and behavior" (Emmons, 1999b, p.12). This paper positions inspiration as the link between spirituality and performance. This study addresses this gap in the sales and marketing literatures by investigating the nature of the relationship of spirituality with job performance, a variable of critical importance to sales and marketing professionals (MacKenzie, Podsakoff & Ahearne, 1998). Specifically, tests of the relationships of spirituality and organizational commitment to inspiration, and inspiration with job performance as the criterion variable are conducted in this study.

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CONCEPTUAL BACKGROUND AND HYPOTHESES

Inspiration

Inspiration has been defined as "a trait or state, triggered by internal or external stimuli, which is characterized by evocation, motivation, and transcendence," and this definition is used for this study (Thrash & Elliott, 2003). Inspiration is strongly associated with spiritual and social environment sources (Thrash & Elliott, 2003; Thrash, Maruskin, Cassidy, Fryer, & Ryan, 2010), and has been conceptualized as an antecedent of motivation (Thrash & Elliott, 2003). Motivation, which "concerns energy, direction, persistence and equifinality" (Ryan &

Deci, 2000), is generally regarded as a factor which affects job performance (Weitz, Sujan & Sujan, 1986). However, one leadership expert notes that "motivating people is a major organizational problem today" (Blanchard & Finch, 2007, p. 148).

Thrash and Elliott (2003) describe evocation as denoting that inspiration is outside the control of an individual and can be "triggered" from within or without an individual. Inspiration is characterized by motivation in the sense that after being inspired, individuals frequently direct their behavior "to" realize a desired goal (the "target"). Transcendence involves overcoming previous limitations or preoccupations (Thrash & Elliott, 2003) or becoming aware of better possibilities (Thrash, Elliot, Maruskin & Cassidy, 2010). In selling contexts, this could involve learning new behaviors or skills (Kohli, Shervani, & Challagalla, 1998) and accomplishing more challenging performance goals since inspired individuals tend to set more inspired goals and have more success in pursuing these goals (Milyavskaya, Ianakieva, Foxen-Craft, Colantuoni, & Koestner, 2012).

Inspired employees perform beyond the requirements of their jobs (Bolino, Turnley, & Bloodgood, 2002), accept increased risks (Bass, 1990), and are enthusiastic about their work (Yukl & Van Fleet, 1982). Enthusiasm contributes to a sense of engagement with one's work, and engagement in interesting activities is a characteristic of intrinsic motivation (Deci & Ryan, 2000). Inspiration precedes self-determination (Thrash & Elliott, 2003), inspired individuals represent the prototype of self-determined behavior (Ryan & Deci, 2000), and inspiration is fully associated with only one type of motivation, intrinsic motivation (Thrash & Elliott, 2003), which is characterized by personal interest, enjoyment, and inherent satisfaction in the individual (Deci & Ryan, 2000).

In a sales environment, intrinsic motivation has been shown to have a greater positive effect on performance than extrinsic motivation (Tyagi, 1985). Despite the benefits inspired salespeople can bring to an organization, a review of the sales literature reveals a lack of studies regarding potential influences on and outcomes of inspiration.

Spirituality

Spirituality is appropriate for this study for several reasons. First, there is a widespread recognition by authors (Aburdene, 2007), scholars (Hamel & Breen 2007; Jackson & Bergeman 2011; Mitroff & Denton 1999; McCullough & Willoughby 2009; Park, Peterson, & Seligman, 2004; Weaver & Agle 2002), and public pollsters Gallup (Gallup & Lindsay, 1999) and Pew Research (Lugo et al., 2008) that spirituality has a deep meaning and strong influence in the lives of many people. Second, spirituality is also capable of contributing to an individual's inspiration (O'Grady & Richards 2010; Thrash & Elliott 2003; Thrash, Elliot, Maruskin & Cassidy 2010, p. 488; Thrash, Maruskin, Cassidy, Fryer & Ryan 2010, p. 472), and can strongly influence behavior and motivation (Emmons 1999b, p. 12). A survey by The Pew Forum on Religion and Public Life (Lugo et al., 2008) reported that nearly 89% of the public identify themselves as religious. Gallup polls (Gallup & Lindsay, 1999) show that 95% of the public believes in God (or Universal Spirit) with large majorities feeling a need for spiritual development.

There are compelling reasons to suggest that business goals and spiritual issues are quite compatible. Sales performance is important (Churchill, Ford, Hartley, & Walker, 1985) due to its direct link to organizational success (MacKenzie, et al., 1998). Spiritual beliefs might relate to performance from the teachings found in scripture. A Christian salesperson might rely on Philippians 4:13 NIV, which states, "I can do everything through him who gives me strength." Adherents of other faith traditions are also likely to draw on spiritual resources for empowerment in the various aspects of their daily life, including their work.
The purpose of this research is to specify and test a model of two proposed antecedents of inspiration, organizational commitment and spirituality, as well as the relationship of inspiration with performance. The direct relationship of organizational commitment with performance is tested along with inspiration as an intervening variable that mediates the effects

of organizational commitment and spirituality on performance. This appears to be the first research that proposes relationships between spirituality, inspiration, and job performance. The model is tested with a sample of salespersons employed at automobile dealerships.

Inspiration and Values

Values are conceptions of desirable ways of behaving or desirable end states (Feather, 1995). They express motivational goals (Feather, 1995) and help individuals determine the goals they wish to pursue or avoid, potentially influence behavior, and transcend specific situations (Feather, 1995; Verplanken & Holland, 2002). People naturally internalize the values and regulations of their social groups, but fully internalized extrinsic motivation rarely becomes intrinsic motivation during the internalization process (Deci & Ryan 2000). Only a small number of central values are a critical part of one's sense of self-identity, express general motivations, and actually have the capacity to drive behavior (Verplanken & Holland, 2002).

Thrash and Elliott (2004) delineate motivation and inspiration by pointing out that "it is possible to be inspired *by* without being inspired *to*." Thus, inspiration is a two stage process. The first stage, to be inspired "by" something, requires a source of inspiration to exist and corresponds to the evocation aspect. The second stage, or the "to" component of inspiration, is associated with the motivation and subsequent behaviors to achieve desired goals which would be driven by values. However, as mentioned earlier, only intrinsic motivation is fully associated with inspired individuals (Thrash & Elliott, 2003). Accordingly, the more extrinsic the source of motivation is, the less likely it is to represent truly inspired behavior.

Identifying what causes salespeople to be "inspired by," (or the "triggers") would be useful since being inspired is recognized as a requirement, but not a sufficient condition, for motivation to be present in inspired individuals. Pinpointing the triggers that eventually lead salespeople to be "inspired to" is especially desirable, since not all triggers lead to action. In fact, these triggering processes could be attributed to different sources (Thrash & Elliott, 2004; Thrash, Elliot, Maruskin & Cassidy, 2010).

Sources of inspiration could provide the triggers described earlier. While there are many sources which could contribute to inspiration in salespeople, this study is restricted to investigating two likely sources of inspiration, organizational commitment and spirituality. The relationship of inspiration, as an intervening variable, with performance, is also investigated (see Figure 1).

THEORETICAL MODEL

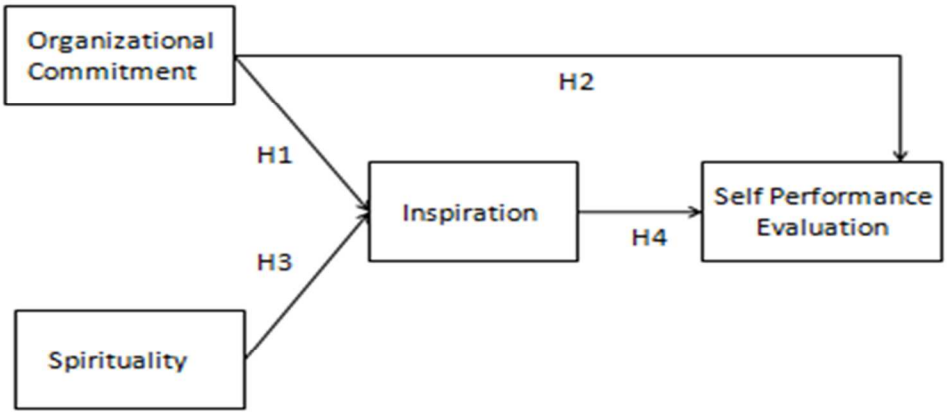
Organizational Commitment, Inspiration, and Performance

Porter, Steers, Mowday & Boulian (1974) defined organizational commitment as "the relative strength of an individual's identification with and involvement in a particular organization" with three defining characteristics: "(1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to maintain membership in the organization." This definition is used in this study.

Organizational values could be made salient to organizational members by positive role models or "exemplary others" (Lockwood & Kunda, 1997; Thrash & Elliott, 2004), transformational leaders (Davidovitz, Mikulincer, Shaver, Izsak, and Popper, 2007), or inspirational leaders within the organization (Bass, 1990, p. 207). Because of the strong acceptance of organizational values by committed employees (Porter et al., 1974), it may facilitate the activation of central values in individual salespeople and provide motivation. These types of values are more likely to be associated with the personal interest, enjoyment, and inherent satisfaction which characterize intrinsic motivation (Deci & Ryan, 2000).

Central values of the individual salesperson, which may be shared with the organization, help define one's self and contribute to one's self-identity (Verplanken & Holland, 2002), so

FIGURE 1:
Conceptual Model of Antecedents and Outcomes of Inspiration



organizational commitment has the capacity to activate the motivation characteristic of inspiration. An organization also fulfills the requirement of a social environment capable of providing inspiration (Thrash & Elliott, 2003; Thrash & Elliott, 2004). Therefore, the following hypothesis is offered:

H_1: Higher levels of organizational commitment are positively related with higher levels of a salesperson's inspiration.

Strong belief in and acceptance of organizational goals and values, and the considerable effort on behalf of the organization characteristic of employees with strong organizational commitment reflects the higher value placed on goal attainment by salespersons in these situations. Empirical evidence has also been developed that suggests inspired individuals make better progress in goal pursuit (Milyavskaya, et al., 2012). Since performance is always a goal of sales organizations, the following hypothesis is developed:

H_2: Higher levels of organizational commitment in salespersons are positively related to higher levels of performance in salespersons.

Spirituality and Inspiration

Positive psychology recognizes spirituality as one of the character strengths, which are defined as "positive traits reflected in thoughts, feelings, and behaviors" (Park et al., 2004). Although a generally accepted definition of spirituality does not exist (Jackson & Bergeman, 2011, p. 150; Tsang & McCullough, 2003, p. 346; Zinnbauer et al., 1999, p. 890), most definitions seem to concur that spirituality is characterized by a desire to connect with God (or the supernatural), a sense of relatedness with others, a religious orientation, and a capacity to influence personality at the core of the individual (Emmons, 1999b; Zinnbauer et al., p. 902), and "shape behavior" (Park et al., 2004).

Several researchers claim that spirituality has motivational properties and may account for explanations of significant amounts of an individual's behavior (Emmons & Paloutzian, 2003; Piedmont, 1999; Sessions, 1994). William James felt that "(B)elieving in a superior power brings a surge of energy, perseverance, and courage" (Meyers, 1986, p. 447). This effect closely parallels Ryan and Deci's (2000) description of motivation, which "concerns energy, direction, persistence and

equifinality." Ryan and Deci (2000, p. 71) also state that "a secure relational base does seem to be important for the expression of intrinsic motivation to be in evidence." The connection with God and others which characterize spirituality would provide that relational base to support intrinsic motivation.

Inspiration was originally associated with influence from a supernatural being (Thrash & Elliott, 2003; Thrash & Elliott, 2004), and is still strongly associated with transcendent matters such as faith and spirituality (Thrash & Elliott, 2004; Thrash, Maruskin, Cassidy, Fryer & Ryan, 2010). Spiritual transcendence is identified as a "source of intrinsic motivation that directs, drives, and selects behaviors" (Piedmont, 1999). Therefore, the relevant research in this area suggests a conceptual link between spirituality and inspiration, but not any specific work related behaviors. Thus, spirituality should influence underlying processes which affect what Paunonen (1998) calls specific responses. Because spirituality influences processes that subsequently influence behaviors, a direct effect on sales performance appears to have no theoretical support. Instead, spirituality is viewed as influencing the intermediate process of inspiration, which then has an effect on subsequent behaviors which could affect performance.

One of spirituality's main functions is "to provide the means and ends for how life should be lived" (Emmons, 1999). This mirrors the definition of values given earlier. The Dalai Lama (1999, p.20), the leader of a major Buddhist tradition, notes that all major religions promote the same basic values. Religion can be an integral part of a person's religiousness, and "spirituality and religiousness can (and often do) co-occur" (Hill, et al., 2000). As Hill et al. (2000) state, spirituality and religiousness are "inherently intertwined."

Therefore, spirituality is linked to outside sources such as God and others, associated with transcendent matters, and related to intrinsic motivation. This covers the three characteristics of inspiration previously discussed of evocation, transcendence, and motivation, and provides justification for the following hypothesis:

H_3: Higher levels of spirituality in salespersons are positively related to higher levels of inspiration in salespersons.

Inspiration and Performance

Inspiration is characterized by a motivation to act in ways that reflect deeply held values. Most businesses focus on satisfying customer needs and embrace values in their organizational culture that reflect this. Potential for value activation to serve the needs of others is present in both organizational commitment and spirituality. Committed employees share these values, and will expend significant effort to meet the goals of the organization driven by these values (Porter et al., 1974). Thrash, Elliot, et al. (2010, p. 490) claim that the transcendent aspect of inspiration is associated with "striving toward valued goals." As shared values become more integrated with individual employees in the socialization process, this leads to motivation that is relatively more intrinsic in nature (Deci & Ryan, 2000).

Sales performance has been the subject of numerous studies. Inspired salespersons will enjoy engaging in challenging activities such as achieving sales goals because they are intrinsically motivated to do so (Ryan and Deci, 2000), and achieving sales goals should lead to higher performance. A qualitative study (O'Grady & Richards, 2010) suggests that inspired individuals are more empathetic in helping situations. The ability to be empathetic, or to see issues as a customer sees them, is mentioned as an absolute necessity for sales success by the CEO of a leading sales development firm (Stevens & Kinni, 2007, p. 70). Finally, inspired individuals set more inspired goals and make more progress in attaining them (Milyavskaya et al., 2012). These perspectives predict greater perseverance, stronger motivation, deeper insight, and more meaningful and valued goals to drive behavior. Therefore, this hypothesis is presented.

H_4: Higher levels of inspiration in salespersons are positively related to higher levels of performance in salespersons.

METHODS

Survey Sample and Procedures

Salespersons belonging to a major automobile retail dealership group in the southwest United States provided the data for this study. A total of 184 surveys were distributed and 161 surveys (87.5%) were returned. Twenty-one were dropped from analysis due to excessive levels of missing data. Appropriate items were recoded, and missing values from the remaining surveys were imputed with the Expectation Maximization (EM) algorithm (Little & Rubin, 2002) using recommended procedures with PRELIS 2 (Jöreskog & Sörbom, 2002). A total of 140 surveys (N=140), or 76.1% of the total sales force, were retained for analysis of the measurement models and structural model.

Males comprised 85.3% of the respondents and the average age of respondents was 39.4 years. 84.6% had at least some college education, and slightly more than half were married (50.7%). The average length of employment at the dealership was less than two years (22.3 months). Ethnically, 39.7% were Caucasian, 20.6% Hispanic, 17.6% African-American, and 16.2% Asian/Pacific Islander.

Survey questionnaires were administered during weekly sales meetings at each of the organization's locations to gather the data used in testing the conceptual model. The firm's President and Human Resources Director encouraged each location's general manager a week prior to survey administration to encourage employee participation and to provide a secure, private environment for respondents to complete the survey during these meetings. Personally signed cover letters from the President/ COO of the firm and the lead researcher were included with the surveys to further reduce concerns regarding the confidentiality of responses. Local administrative managers distributed and collected the completed surveys which respondents had placed in sealed envelopes. These were shipped directly to the researchers.

The recommendations of Podsakoff, MacKenzie, Lee, & Podsakoff, (2003) to minimize the potential effects of common method bias were followed by methodologically separating the predictor and criterion variables by using different response formats for each, protecting respondent anonymity and reducing respondent apprehension, and improving scale items.

Measures

Established scales were used for all measures. Spirituality was measured using the Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997). This scale is recommended to measure spirituality at the dispositional level. This 10-item self-reported scale was modified to use a 5-point (1 = Strongly Disagree; 5 = Strongly Agree) Likert-type response format. Summed scores between 10 and 50 are possible, with higher scores indicating stronger spirituality.

Organizational commitment was measured with a 7-point Likert-type scale developed by Mowday, Steers, & Porter (1979). This summated ratings scale measures the degree to which an employee reports being actively involved with their organization (Mowday et al., 1979). The scale is anchored by "1 = strongly disagree" and "7 = strongly agree." Higher scores indicated greater organizational commitment.

Inspiration was measured using the Inspiration Scale (Thrash & Elliott, 2003), a 7-point Likert scale anchored by "never" and "very often." Higher scores show greater levels of inspiration.

Performance was measured with a modified form of a scale previously used in the sales literature (Futrell & Parasuraman, 1984). This scale requires salespeople to rate themselves among 11 items on a scale of 1-7. The anchors for this scale are 1=poor and 7=excellent. Higher scores indicated higher performance.

A list of the items we retained in the scales used in this study are located in Appendix 1. The factor loadings on their respective constructs are also reported.

RESULTS AND ANALYSIS

Prior to testing the hypothesized relationships in the model using path analysis, the measures

were refined using structural equation modeling (SEM). First, an exploratory factor analysis was conducted on each measure to determine possible dimensionality, then a confirmatory factor analysis (CFA) using LISREL 8.72 (Jöreskog & Sörbom, 1993) was performed on each of the measures of reflective indicators to establish the unidimensionality of the construct (Gerbing & Anderson, 1988). In the process of establishing unidimensionality, some items were dropped from several scales due to empirical or theoretical considerations as recommended when a converged, proper solution is obtained, but overall model fit is unacceptable (Anderson & Gerbing, 1988).

A CFA was not performed on the self-performance measure, since it is an index, and derives its meaning from the items. Dropping any items from a formative measure such as this could alter the empirical and conceptual meaning of the construct because "the indicators only capture the entire conceptual domain as a group" (MacKenzie, Podsakoff, & Jarvis, 2005). The CFA for each construct resulted in a model exhibiting acceptable fit according to guidelines in the SEM literature for sample sizes less than 250 with CFI values close to 0.95 and SRMR values < .08 (Hu & Bentler, 1999). In addition to these values, RMSEA and chi-square values are reported. After unidimensionality was established, the composite reliabilities (ρ) and average variance extracted (AVE) for each measured construct were calculated (Bagozzi & Edwards, 1998). The lowest values for AVE (.55) and composite reliability (.91) exceeded the recommended minimums of .50 for AVE and .70 for composite reliability (Hair, Anderson, Tatham, & Black, 1998). A summary of the correlations between the constructs, their reliabilities, and measures of fit are provided in Table 1.1.

The path analysis model was estimated using LISREL 8.72 (Jöreskog & Sörbom, 1993) to test the hypothesized relationships in the conceptual model. This procedure was selected because it allowed all hypothesized relationships to be simultaneously tested while exceeding the minimum sample size recommendation of 10 observations per parameter estimate (Hair et al., 1998, pp.604-605). Mediation was tested using recent guidelines for SEM. Since SEM is a confirmatory approach, tests for complete mediation do not require a hypothesized direct relationship between the initial variable and the outcome variable if there is no theoretical support for the relationship (James, Mulaik & Brett, 2006), which is the case for spirituality and performance. Partial mediation, which is expected for the relationship between organizational commitment and performance, requires the initial variable to have direct relationships with the intervening variable and the outcome variable (Homburg, Wieseke, & Bornemann, 2009, p. 73; James, Mulaik, & Brett, (2004) p. 242). Results of the model are shown in Table 1.2.

The positive relationship of organizational commitment with inspiration in H_1 was supported with a standardized loading of .27 and *t*-value of 3.39. H_2 hypothesized a direct positive relationship between organizational commitment and performance, but a standardized loading of .03 with a *t*-value of .34 for this path provided no support for this hypothesis.

H_3 tested a positive relationship between spirituality and inspiration. A loading of .26 with a *t*-value of 3.33 supported this. The positive relationship between inspiration and job performance in H_4 was also supported with a standardized loading of .23 and a *t*-value of 2.65.

Based on the squared multiple correlations for the structural model, 16% of the variance in inspiration and 6% of the variance in performance were accounted for.

Mediation Results

Inspiration was expected to partially mediate the effect of organizational commitment on performance, and to completely mediate the effect of spirituality on performance. Since H_2 was not supported, the relationship of organizational commitment and performance is not partially mediated by inspiration. However, both organizational commitment and spirituality had a significant direct relationship with inspiration, and inspiration had a significant, direct relationship with performance. This suggests that inspiration fully mediates the effects of both organizational

TABLE 1.1:
Correlations, Means, Standard Deviations, Measures of Fit, and Reliabilities of Scales for Constructs in the Model (N=140)

Scales	Organizational Commitment	Spirituality	Inspiration	Self Performance	Mean	SD
Organizational Commitment	1.00				78.8	13.5
Spirituality	.124	1.00			38.9	10.1
Inspiration	.268**	.292**	1.00		45.3	8.1
Self Performance	.105	.053	.315**	1.00	68.5	7.3
CFI	.94	1.00	.95	na		
SRMR	.053	.012	.041	na		
X^2	50.32	4.53	12.80	na		
df	5	2	5	na		
p	0.00	0.10	0.00	na		
Cronbach's α	.84	.96	.94	.88		
Composite Reliability	.91	.94	.93	na		
AVE	.55	.81	.71	na		

** Significant at .01

TABLE 1.2:
Parameter Estimates/ T-Values

Parameter/Relationship	Path	
H_1: OC → INSP	Γ 1,1	.27/3.39
H_2: OC → PERF	Γ 2,1	.03/0.34
H_3: SPIRIT → INSP	Γ 1,2	.26/3/33
H_4: INSP → PERF	β 2,1	.23/2.65

	Structural Model Measures of Fit
X^2	.045
P	1.00
df	4
CFI	1.00
SRMR	.0053
RMSEA	0.0

	Squared Multiple Correlations
Inspiration	.16
Performance	.06

OC= Organizational Commitment, INSP = Inspiration, PERF = Self Performance, SPIRIT = Spirituality

commitment and spirituality on performance in this study.

DISCUSSION

The key finding in this study is that spirituality has a positive relationship with performance which is fully mediated by inspiration. Thus, inspiration provides a mechanism to transmit the beneficial effects of spirituality to outcomes of interest to organizational researchers. This effect was comparable to the positive relationship organizational commitment had with performance which, in this study, was also fully mediated by inspiration. This may be the first empirical linkage of spirituality to job

performance to appear in the sales, marketing, or organizational literatures. The weak and statistically insignificant relationship between spirituality and organizational commitment in this study strongly suggests that these effects were independent of each other.

Organizations devote considerable resources to fostering environments to sustain a motivated workforce. In this study, however, spirituality, which is widely ignored or suppressed within organizations (Mitroff & Denton, 1999, p.4), provided a comparable effect relating to performance. We used self-ratings in this study to measure performance, and this practice has been controversial. The most recent meta-analysis of sales performance evaluations found that while both managerial and self-reports of sales performance have predictive validity, both types are undesirably low in predicting objective performance ratings (Jaramillo, Carrilat & Locander, 2005). Another reason self-reports are important is because salespeople who believe they are performing well reflect confidence in their abilities, and confidence has been shown to have a positive relationship with salesperson performance (Krishnan, Netermeyer, & Boles, 2002). The squared multiple correlation for inspiration's relationship with performance in the model was 6%, which is comparable to the average variance (less than 10%) accounted for by predictor variables of performance in Churchill et al.'s (1985) meta-analysis of this topic. Clearly, inspiration promotes self-perceptions of performance, and spirituality and organizational commitment each have the demonstrated capacity to inspire salespeople. Firms allocate many resources to create, maintain, and grow organizational commitment in their employees. But spirituality's influence in business settings remains relatively unknown. There are several reasons that may explain this.

Managers may feel that issues related to organizational commitment, such as identifying with organizational goals, developing affective ties to the organization, etc., may be within their span of influence and expertise. Implementing proper employee selection techniques can assist them in hiring employees whose values closely match the organizations. However, they may be uncertain or unfamiliar with what to do to foster the beneficial effects of spirituality within an organization. A fear of offending others or violating legal statutes may dampen their willingness to address spiritual issues in the workplace.

The body of knowledge of the relationship between organizational commitment and performance is expanded by the finding that organizational commitment's relationship with performance was fully mediated by inspiration.

MANAGERIAL IMPLICATIONS

There are three key areas that deserve managerial attention as a result of this study. First, trait inspiration measures can be used to pinpoint job candidates who are more likely to be inspired. Doing this would complement other processes designed to maximize P-O fit in the employee selection process. These employees would be more receptive to attempts to inspire them, and more likely to be motivated to act in desired ways. Second, a key implication of this study is that spirituality has a relationship with performance which is very comparable to that of organizational commitment. Organizations devote substantial resources to create environments that encourage the realization of organizational goals such as performance. Substantial resources are devoted at the organizational level to try to inspire salespeople to be motivated to consistently perform their jobs well, particularly since salespeople in general interact less frequently with their direct managers compared to other types of employees. Spirituality, on the other hand, receives very little attention in many workplace settings as a source of inspiration. Indeed, a post hoc analysis showed the variables organizational commitment and spirituality did not have a statistically significant relationship. Therefore, all positive relationships spirituality exhibited were independent of organizational influence. It is conceivable that organizational settings that promote development and expression of the spiritual aspect of employees could promote an interaction effect between spirituality and organizational commitment that enhances the overall influence on employee inspiration, and subsequently, performance.

Business organizations have adapted over the years to effectively harness the beneficial influence of ethnic and gender diversity on business outcomes. While spirituality in individuals may seem to be disparate, Smith (1979, p. 12) notes that "one is struck by similarities of religious faith, which turn out to be greater than one might have supposed." Businesses should seek ways to encourage employees to let their spirituality influence their behavior since it is an important part of their lives. Suppressing the influence of spirituality robs businesses of its positive effect on inspiration and, subsequently, performance. If spirituality is a mega-trend in global society (Aburdene, 2005), businesses should seek to manage it to capture its beneficial effects, rather than suppress or ignore it. A recent article in The New York Times observes that a recent United States Supreme Court decision has affirmed that the Religious Freedom Restoration Act does apply to businesses (Schwartz, 2014). This decision, and similar others, may encourage some businesses to try and harness the benefits of spirituality in the workplace.

This study provides a justification for business organizations to investigate how to provide spiritual-friendly environments for employees in order to promote the likelihood that external stimuli, from the organizational setting, may trigger inspired actions in their employees. Examples could include providing secluded spaces for prayer, meditation, or reflection in the workplace, allowing religious materials or symbols to be openly displayed in personal work spaces, discussing matters of religion with employees in a non-judgmental manner, providing clergy for appropriate situations when requested, and promoting organizational values which harmonize with many faith traditions. Undesirable examples would be formal efforts of proselytizing in the workplace or forcing participation in spiritual activities sponsored by the organization.

LIMITATIONS AND FUTURE RECOMMENDATIONS

This study was a cross-sectional study of salespeople in only one industry, so it may not be generalizable to salespeople in other industries. Since all measures were self-reported, the possibility of common method bias exists (Podsakoff et al., 2003) although we attempted to minimize the potential effects of common method bias as described in the Methods section. It would be highly desirable for longitudinal studies to be conducted of salespeople in other industries with a variety of performance measures obtained, including objective reports or managerial assessments. Although the sales force surveyed had twice the typical percentage of women found in automobile sales jobs, females were not heavily represented in this study. This further constrains the generalizability of the results, especially since women are found to be more religiously oriented than men (Koenig, George, & Siegler, 1998; Strawbridge, Shema, Cohen, & Kaplan, 2001). A study with greater balance between the number of men and women in the sample would be desirable to see if this difference leads to substantively different findings.

Another limitation concerns the relatively large percentage of respondents (24.9 %) with relatively short tenure in the organization. Since organizational commitment tends to strengthen over time, the full effect of organizational commitment on criterion variables may have been attenuated due to the inclusion of a relatively large percentage of the sales force that has not internalized organizational values through the socialization process. Thus, it would be desirable to conduct a study of these variables using a sales force with, on average, a longer tenure with their employer.

The sales representatives used as respondents in this study were employed by an organization that did not promote or suppress spirituality within the organization. It could be revealing to investigate the variables in this study using respondents drawn from organizations that either actively support or suppress spirituality within the organization to see if the effect is replicated.

Finally, only two potential influences of inspiration were tested in this research. Identifying and testing additional conceptually related variables could add to our understanding of how inspiration can be fostered in the

workforce to benefit customers and organizations.

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APPENDIX 1:
Measures Used in the Study with the Item's Standardized Loadings

Spirituality	**Factor loading**
I look to faith as a source of inspiration.	.92
I look to my faith as providing meaning and purpose in my life.	.94
My faith is an important part of who I am as a person.	.92
I look to my faith as a source of comfort.	.82
Organizational commitment	
I speak highly of this organization to my friends as a great organization to work for	.81
I find that my values and the organization's values are very similar	.71
I am proud to tell others that I am part of this organization	.75
I am extremely glad that I chose this organization to work for over others I was considering at the time I joined	.79
For me this is the best of all possible organizations for which to work	.70
There's not too much to be gained by sticking with this organization indefinitely.*	.66
Often I find it difficult to agree with this organization's policies on important matters relating to its employees.*	.74
Inspiration	
I experience inspiration (Frequency)	.77
I experience inspiration (Strength)	.89
Something I encounter or experience inspires me (Strength)	.85
I am inspired to do something (Strength)	.83
I feel inspired (Strength)	.88

Self Performance	**Item-total Correlation**
Willing to work hard	417
Honesty with others	.550
Current selling skills	.742
Customer service skills	.717
Current overall job performance	.672
Ethics with others	.522
Product knowledge	.472
Ability to sell to present customers	.743
Works well with others in dealership	.488
Cross-selling effectiveness	.704
Responds well to coaching	.594

* Reverse coded item

THE DUALITY OF E-MONITORING: HARMFUL OR HELPFUL?

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Sales managers today can use information technology systems to monitor every step of the selling process, from tracking leads to closing. Managerial monitoring may harm some forms of motivation while encouraging still others. Working within the conceptual framework of self-determination theory this study tested for these effects. According to the industrial salespeople surveyed in this research effort, managerial monitoring has a positive effect on sales orientation. Salesperson's motivation to work hard was also influenced by higher levels of perceived managerial e-monitoring. Salespeople perceive e-monitoring to serve more internal purposes such as achieving sales goals or increasing the level of their sales efforts. The harmful effects of e-monitoring, however, were not supported. This may suggest salespeople are less threatened by the technology that increases their visibility.

INTRODUCTION

No longer restricted to direct face-to-face observation, sales managers are harnessing the power of technology to monitor every step of the sales process (Schulman, 2001; Stakenas, 2012). Just as the salesperson has moved beyond adoption to integrating SFA (sales force automation) tools, so too has the sales manager. Every time a salesperson uses SFA, a trace is created which can be monitored. For example by using events timeline logging, a manager can know how long each program was used, the websites visited and the documents printed. Sales organizations are using software like LaunchForce that tracks salesperson's use of information sources (Weinreb, 2002). E-monitoring has been defined as the use of computer systems to collect, store, analyze and report individual or group actions or performance (Nebeker & Tatum, 1993). While research has examined the effect of e-monitoring on compliance with ethical standards, less is known about its effect on salesperson motivations and orientations (Bush, Bush, & Orr, 2010).

This research gap exists in no small part because of the rapid pace of change in e-monitoring. According to annual surveys conducted by American Management Association there has been a steady increase in employee monitoring. In 1997 15% of all surveyed companies reported monitoring their employees (American Management Association, 2008). By 2001 that number had risen to 46%. The 2007 report estimates 66% of companies monitor Internet connections. Forecasts for 2015 indicate e-monitoring has extended far beyond just e-mail to employees use of social media (Flynn, 2014). Not only are usage rates increasing, new e-monitoring tools (both software and hardware) are being developed (Wakefield, 2004). E-monitoring can be powerful tool for field sales managers and we need a deeper understanding of its effect.

Keeping up with this pace of change has proven to be a research challenge. This study addresses these challenges and in doing so fills gaps in our understanding. Some sales management studies offer speculations, but do not test the effect of e-monitoring. Post hoc discussion of sales information technology point to unexpected findings and discuss the possibility that salespeople are reacting to managerial monitoring (Moutot & Bascoul, 2008; Sundaram , Schwarz, Jones, & Chin, 2007; Robinson, Marshall, & Stamps, 2005; Speier & Ventatesh, 2001). A few studies which have empirically tested monitoring's effect have focused on the prevention of unethical behaviors (e.g. Busch, Bush, & Orr, 2010; Cicala, Bush, Sherrell, & Deitz, 2014; Harris & Ogbonna, 2006). None to date have examined the degree to which monitoring

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effects motivations and orientations. Monitoring is being done for both preventative as well as developmental reasons (Stanton & Stam, 2006). At this point in the sales management literature we know more about the preventative than we do developmental aspects of e-monitoring.

If e-monitoring did not differ from other forms of monitoring (such as face-to-face observation), this lack of knowledge would not be a problem. Management literature, however, strongly suggests e-monitoring differs (e.g. Stanton & Sarkar-Barney, 2003; Watson et al., 2013). Unlike other forms of monitoring, e-monitoring provides voluminous data about multiple dimensions of performance. E-monitoring is constant, pervasive and unblinking (Aiello, 1993). The reactions to e-monitoring are more varied than the reactions under face-to-face monitoring (Kluger & DeNisi, 1996). When a firm is depending on the field salesperson to generate revenue and solve customer problems, these differential reactions may be problematic.

A challenging aspect of field sales is the need to blend motivation to work hard with motivation to work smart. Similarly, a salesperson must be customer oriented while still achieving sales goals. From a practical viewpoint, salespeople must blend customer and sales orientation. From a conceptual viewpoint, monitoring may have differential effects on each. To examine these possible harmful and helpful effects, this research builds on the framework of self-determination theory to integrate relevant sales management and electronic performance monitoring literature. Self-determination theory has proven to be a strong theoretical platform for explaining volitional behaviors (Deci, Koestner, & Ryan, 2001). Self-determination theory (SDT) proponents believe the most powerful motivations are those that were self-selected. According to SDT an employee will persist in an activity (i.e. be highly motivated) when their needs for autonomy and competence are being met (Deci, Connell, & Ryan, 1989). Managerial actions, which feed or thwart these needs (for feelings of autonomy and competence), will cause changes in employees' motivation. Thus SDT offers a conceptual framework for examining the possibility of varied reactions of salespeople to e-monitoring. Based on the SDT concepts and studies, the hypothesized effects of e-monitoring are empirically examined.

E-monitoring and Salesperson Motivation: Working Hard and Working Smart

Working hard describes the *level* of motivation and working smart describes the *direction* of motivation. Working hard reflects the amount of effort the salesperson puts toward his or her work, either by working more hours or working more intensely during those hours, whereas working smart reflects planning, adapting and analyses (Sujan, Weitz, & Kumar, 1994). For example, a salesperson working hard may increase the number of sales calls made or proposals submitted. This persistence in the face of buyer rejection or resistance is one part of sales success. Equally important is the ability of the salesperson to offer thoughtful solutions. A salesperson working hard will engage in more cold calls and a salesperson working smart will use analyses to customize an approach to a select few potential customers. Thus working smart requires analysis and planning whereas working hard requires persistence and tenacity (Klehe & Anderson, 2007). Both forms of motivation (working hard and working smart) have been linked to sales productivity (Holmes & Srivastava, 2002).

While these two forms of motivation contribute to successful outcomes, self-determination theory contends managerial monitoring will not have the same effect on each (Shalley & Perry-Smith, 2001). Sales managers can monitor indicators of working hard (e.g. tracking the number of customers contacted) as well as working smart (e.g. the use of CRM analysis). Theoretically monitoring may not have the same impact on these two forms of motivation. Self-determination theory (SDT) contends motivation will only be optimized when the employees feel competent and autonomous (Ryan & Deci, 2002). Managerial monitoring has mixed effects; enhancing one need and diminishing another (Stanton & Stam, 2006). The subsequent sections first describe the positive effect monitoring may have on working hard then describe the negative effect monitoring may have on working smart.

According to self-determination theory, a salesperson will be motivated to expend more effort (i.e. work hard) if he or she feels competent (Ryan & Deci, 2002). A field salesperson must be motivated to make yet one more sales call or submit additional proposals. Exerting this level of effort in the face of buyer rejection or resistance is aided when the salesperson feels competent in doing so. Feelings of competency will increase the salesperson's belief that the extra effort will result in success. Typically a salesperson working hard will make more sales calls and can generate incremental sales. The monitoring of the salesperson's number of calls and resultant success rate provides feedback that builds competence. To the degree that monitoring provides this type of feedback, then self-determination theory claims monitoring should provide the quantitative indicators which bolster feelings of competency. When monitoring feeds those feelings of competency the salesperson will find monitoring stimulates higher levels of effort (i.e. working hard).

Working hard tends to be a form of motivation more commonly used when the salesperson seeks immediate outcomes or is extrinsically motivated (Miao, Evans, & Zou, 2007). When the salesperson is working hard they tend to do so in an effort to achieve immediate or short-term goals. In their longitudinal study Moutot and Bascoul (2008) found salespeople engage in this form of activity (i.e. making more sales calls or submitting more sales proposals) when managers use computer monitoring. This finding in the field sales setting has been verified in controlled lab experiments as Stanton and Julian (2002) found effort levels were higher when subjects were monitored. Subjects and salespeople may find the attainment of short term goals was possible with working hard. The immediacy of monitoring systems provided feedback to reinforce the link between level of effort and results (McNall & Roch, 2007; Goomas & Ludwig, 2009). When electronic performance monitoring is in place, working hard (e.g. making numerous sales calls) is a fast way of increasing quantitative indicators. To the degree that electronic performance monitoring encourages the pursuit of quantitative indicators of achieving short term goals, one might expect a positive relationship between electronic performance monitoring and working hard.

> **H_1:** Higher levels of electronic performance monitoring will be associated positively with a salesperson's willingness to work hard.

In comparison to working hard, working smart refers to the direction of effort and places more attention on planning and the development of adaptive selling skills (Rapp, Ahearne, Mathieu, & Schillewaert, 2006). The adaptive salesperson will analyze each situation, decide on an appropriate course of action and propose a customized solution. Thus, working smart requires the salesperson to be flexible in the options selected and feel they have the discretion to do so. As a result, working smart is highly dependent on the salesperson feeling autonomous. When job-related autonomy is reduced, employees feel less ownership over the task (Druskat & Wheeler, 2003). Lacking ownership over the task, the employee may be less inclined to engage in planning (or working smarter) to achieve the task. SDT claims managerial monitoring tends to be perceived by those being monitored as controlling, judgmental and restrictive (Deci & Ryan, 1985). In a sales setting, Johnson and Bharadwaj (2005) suggest this may be the case as they found the combination of a high degree of managerial monitoring had an adverse effect. In a similar task setting (i.e. complex tasks completed with autonomy) interviews with non -sales employees suggest computer monitoring reduced employees' ability to set their own priorities and select their own methods (Zweig & Webster, 2002). The field salesperson works independently at the boundary of the sales organization to provide value to each customer. When monitoring is believed to serve the purposes of controlling, then autonomy needs of the salesperson are not being met. If a salesperson's autonomy needs are diminished, then theoretically (i.e. self-determination theory) motivation to work smart will suffer.

Because working smart requires a higher level of preparation than working hard, this form of motivation spans a longer period of time. The problem inherent in monitoring systems is the common perception among employees that

these systems favor short term rather than long term results (Kluger & DeNisi, 1996). Given this common perception, the mere existence of e-monitoring in the field sales setting may discourage salespeople from trying new solutions or developing analytical skills. The lag between successful outcomes or skill competence may act as a deterrent to working smart in a highly monitored work environment. Repeatedly studies have found that self-directed learning tends to have a longer and more positive effect – and are less likely in highly monitored conditions (Deci, Koestner, & Ryan, 2001; Jensen & Raver, 2012; Roca & Gagne, 2008). Self-determination theory suggests the highly monitored field salesperson will feel less autonomous, less likely to invest in acquiring new skills and less likely to be motivated to work smart.

H_2: High levels of electronic performance monitoring will be associated negatively with a salesperson's willingness to work smarter.

Electronic Performance Monitoring and Sales Orientation-Customer Orientation

The primary focus of a salesperson can be described in terms of their emphasis on getting sales results or solving customer problems. Sales orientation places emphasis on getting buyer commitments, closing the sale, and meeting quotas. A customer oriented, salesperson, however, advocates for the customer and explains customer needs to departments within his or her sales organization. While customer orientation tends to be the approach endorsed by marketing firms, salespeople must achieve sales organization goals (Homburg, Muller, & Klarmann, 2011).

A sales orientation places emphasis on the outcomes and results – and with those results the extrinsic rewards. Salespeople with a strong sales orientation tend also to be extrinsically motivated (Saxe & Weitz, 1982). Because sales quotas are tied to corporate goals, it is safe to describe the achievement of sales outcomes as one relying on more extrinsic forms of motivation. The salesperson who adopts a high level of sales orientation, therefore, has a higher concern for showing progress toward achieving the sales goals and has a higher concern for impressing his or her internal constituents (i.e. sales managers). This implies the prime motivation behind sales orientation is influenced more by externalities (i.e. financial reward or supervisory endorsement). The extrinsic nature of rewards will be consistent with the activity of managerially monitoring progress toward sales goals. The very act of monitoring the actions of another, according to self-determination theory, will crowd out intrinsic and increase extrinsic reward orientation (James, 2005). To the degree that monitoring is external to the salesperson and that salesperson is pursuing extrinsic rewards, then one might expect a positive relationship.

On a practical note, monitoring may provide a frequent reminder of progress toward quota achievement. Sales management research suggests highly monitored salespeople will be concerned with doing what is required of them. For example, Schepers, Falk, Ruyter, Jong, and Hammerschmidt (2012) found managerial monitoring and salesperson in-role behavior was highly correlated (at .45 levels). To the degree that in-role behaviors focus on achieving quota, then monitoring may enhance sales orientation. This desire to demonstrate proficiency to others has been shown to be an important factor in electronic performance monitoring (EPM) (Watson et al., 2013). The mechanism through which EPM has this effect may rest in the ability of EPM to provide specific performance information. EPM increases managements' ability to gather these indicators. The salesperson seeking to provide management with evidence of their efficacy will focus on sales outcomes. Thus the field salesperson seeking to provide management with evidence of their sales abilities may develop a higher level of sales orientation under high EPM levels. Conceptually and practically, monitoring may feed the fact and feeling of competency in achieving sales goals, the result of which may be higher levels of sales orientation.

H_3: Higher levels of electronic performance monitoring will be associated with higher levels of

sales orientation in salespeople.

A customer oriented salesperson tends to avoid sales tactics that put customer interests at risk and seek out tactics that build customer relationships (Saxe & Weitz, 1982). When a salesperson is oriented toward customers, they invest time in understanding the customer's problem and proposing effective solutions. Thus a customer oriented salesperson must be able to respond to a variety of customer needs, engage in creative problem solving and feel empowered in their customer interactions (Martin & Bush, 2006). It is this requirement (of creativity, flexibility and empowerment) that ties customer orientation to more intrinsic forms of motivation.

A salesperson who adopts a customer orientation will attempt to identify the unique needs of each customer and engage in adaptive selling behaviors (Franke & Park, 2006). This orientation will require a series of complex tasks; from discerning important customer needs to proposing an applicable solution. The pursuit of these more cognitively challenging tasks will be more likely when the salesperson enjoys this challenge and takes pleasure in skill development (Miao, Evans, & Zou, 2007). The motivation to improve, to learn or to expand abilities is a deeper level of motivation. This deeper level of motivation is more likely when it is self-determined. A self-determined level of motivation will not occur unless the employee feels they made their own choices and have the ability to complete the tasks (Deci & Ryan, 1985). The problem, however, is that monitoring professional level employees who are engaged in finding creative solutions to ambiguous problems may erode feelings of autonomy.

Sales manager monitoring may be perceived by subordinates to be constrictive. A field salesperson may restrict the range of responses to customer problems when he or she knows the response may trigger a component being monitored by management. For example, if a field salesperson knows credits are monitored, he or she may be less likely to authorize returns. The findings of Sewell and Barker (2006) suggest professional level employees are more likely to find monitoring as invasive and diminishing their abilities. To the degree that salespeople serve as application engineers, consultants and take on the role of knowledge workers, one might expect this same negative reaction (Auh & Menguc, 2013; Verbeke, Dietz, & Verwaal, 2011). Frequently sales force automation (SFA) studies include this negative reaction as a speculative reason for salesperson resistance to fully using SFA tools (Robinson, Marshall, & Stamps, 2005; Speier & Venkatesh, 2002). These perceptions of control and restrictions could affect selling behaviors. In the field sales setting this may result in fewer and less creative approaches to solving customer problems (Wang & Netemeyer, 2004). Interviews of sales and non-sales employees found electronic performance monitoring is associated with a loss of empowerment and a perceived lack of freedom (Allen, Coopman, Hart, & Walker, 2007; Bush, Bush, Orr, & Rocco, 2007).

Stanton and Stam (2006) argue that by restricting employee freedoms, electronic performance monitoring will reduce the likelihood that an employee will possess a high concern for others. Certainly the field experiment conducted by O'Donnell, Ryan, and Jetten (2012) confirms this argument as they found helping behavior was far less likely under high monitoring conditions. To the extent that electronic performance monitoring results in less salesperson empowerment and more managerial control, one can hypothesize a negative relationship between electronic performance monitoring and customer orientation.

H_4: Higher levels of electronic performance monitoring will be associated with lower levels of customer orientation in salespeople.

In summary, the expectation is that e-monitoring will harm working smart and customer orientation while enhancing working hard and sales orientation (See Figure #1). To provide a rigorous test, the study design controlled for two possible covariates. Experience of the salesperson and the culture of the organization are the covariates as they could affect these hypothesized relationships. Specifically Rapp et al. (2006) found experience acted as a moderator in their analysis of motivation to work hard or work

smart. Similarly Sewell and Barker (2006) contend employees' perceptions of managerial actions may be favorable or unfavorable depending on the prevailing values and culture of the employing organization. Thus experience and organizational culture will be measured and statistically controlled in this test of the four hypotheses.

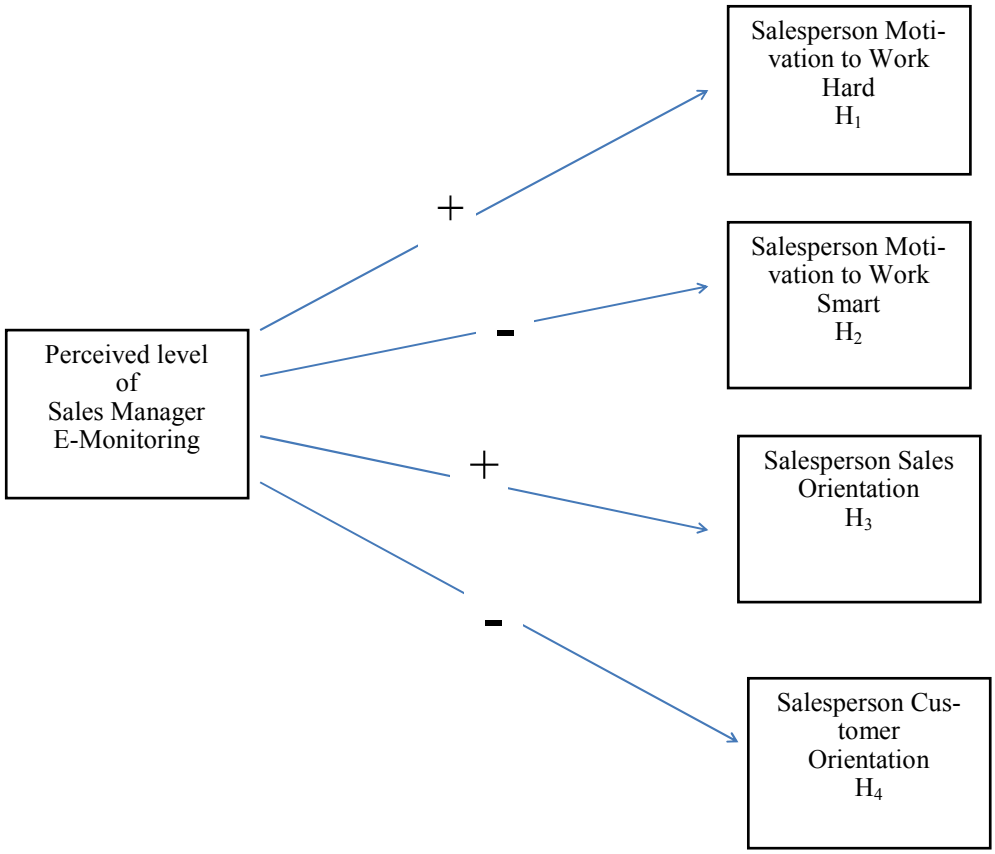
METHOD

Data Collection and Samples

The sampling frame was created by generating a list of randomly selected manufacturing firms from the American Business Directory database. Each firm was screened to include only those firms who employed their own sales force (no agents or outside reps). Those manufacturers who employed a geographically dispersed field sales force and made the investment in supplying their employees with IT tools were deemed appropriate respondents for this study. Firms who agreed to participate were mailed a packet of materials for each of their salespeople. Responses were sent directly to university researcher to assure confidentiality. One reminder request was mailed to non-respondents three weeks later.

Two samples were generated using this method; one set for pretesting the electronic performance monitoring scale and another set to test the hypotheses. Response rates for both datasets fell within typical ranges as described by Carter, Dixon, and Moncrief (2008), (i.e. pretest dataset response rates of 29.6% as 101 complete responses were received from the 341 distributed and 23.6% for the full scale dataset resulting in 189 usable responses). Two comparisons were conducted in an effort to evaluate the representativeness of the samples; (1) responding firms size and industry profile was compared to that of nonresponding firms

FIGURE 1:
Hypothesized Relationships



and (2) respondents drawn from the ABI database to those members of a similar database. No proportional differences exist in terms of company size as indicated by the number of either employees or annual revenue. These comparisons imply the data are untainted by nonresponse bias. Table 1 summarizes the demographic profile of the full scale data collection effort (i.e. n=189 dataset used to test the hypotheses). These 189 responses were collected from 67 industrial firms engaged in various manufacturing processes (i.e. SIC 2000 to 3900). The average number of respondents per company was 3 (ranged from 1 per firm to 5).

In addition to comparing respondents to nonrespondents, the pre-test sample was compared to the full scale sample (See Appendix A). The samples were similar in terms of salesperson demographics or compensation methods. MANOVA testing for differences in 6 variables (sales compensation, number of customers per territory, salesperson experience, salesperson education, annual revenue and total number of employees carried an overall F of 1.82 (probability of .09). The Scheffe pairwise comparison (using .05 as the critical value) indicates both revenue and employees differed between pretest and full

TABLE 1:
Demographic Profile
N=189

Sales Compensation	
Straight Salary	24%
Straight Commission	29%
Combination	47%
Number of Customers in Territory	
Less than 25 accounts	17%
25-100 accounts	41%
101-200 accounts	24%
201 or more accounts	18%
Salesperson's Experience with Firm	
Less than 1 year	5.9%
1-3 years	17.8%
4-6 years	18.2%
7-9 years	12.3%
10-12 years	11.8%
13 or more years	34.0%
Gender	
Male	86%
Female	14%
Age	
25 or younger	-
25 to 34	15%
35 to 44	27%
45 to 54	34%
55 to 64	20%
Over 64	4%

scale samples. The pretest sample tended to be comprised of respondents working for smaller firms. Since it is likely IT investments of smaller firms will differ from those of larger firms, the characteristics of IT systems were measured and compared. These two samples did not differ in terms of their sophistication as indicated by network capabilities, data access, or connectivity (Appendix B). Given these similarities, it was likely the results of pretesting the electronic performance monitoring scales would be indicative.

Measures

With the exception of electronic performance monitoring all variables were measured using pre-existing scales. Electronic performance monitoring measure was tested using both pretest and full scale data sets. This five item scale asked respondents to rate the degree to which they believed sales management used data from their IT system to control their sales efforts. (See Table #2 for a listing of all five items). Work smart measures the direction of effort while work hard is designed to measure the amount of effort (Sujan, Weitz, & Kumar, 1994). The SOCO scale items describe the salespersons desire to help customer assess their needs (customer orientation) and/or the salespersons' emphasis on closing the sale regardless of customer concerns (i.e. sales orientation) (Saxe & Weitz, 1982).

Analyses

All of the dependent variables were tested simultaneously across levels (low to high) of electronic performance monitoring using multiple analysis of variance (MANOVA) procedures. To allow for a more precise test of the hypothesized effects of electronic

TABLE 2:
E-Monitor Scale Properties: Pretest and Full Scale Datasets

Bold font=pretest dataset results (n=108)
Regular font =full scale dataset results (n=189)

	Items	Std. β	
Mean **19.88** 16.51	Management uses the information from our sales systems to tell me what specific selling behaviors I ought to be doing on my job.	**.75** .66	C.R. **.86** .82
	Management uses the information from our sales systems to monitor and control my selling efforts.	**.82** .52	V.E. **.56** .48
Std. Dev **6.62** 5.86	Information from my company's sales systems I used by management to point out to me when I am not using the right selling techniques.	**.81** .77	
	Information from my company's sales systems is used by management to pressure me to use specific selling methods.	**.83** .68	
	Information from my company's selling systems is used by management to tell me what specifically I should be doing on my job.	**.48** .80	

Measurement Model Properties	**Pretest**	Full Scale
Chi-Square	**10.06** **(prob=.0736)**	19.60 (prob=.0015)
Goodness of Fit Index	**.9659**	.9569
Bentler-Bonnett Non-normed Index	**.9586**	.9051

performance monitoring, covariates were included in subsequent multiple analysis of covariance (MANCOVA). The MANCOVA sought to control for salesperson experience and organizational culture. Both experience and organizational culture share a close relationship with motivation and orientation (Rapp et al., 2006; Sewell & Barker, 2006. Thus the MANOVA results were verified by adjusting the mean level of working smart, working hard, sales orientation and customer orientation for these covariates (e.g. the MANCOVA results were compared to MANOVA to provide stronger evidence of any possible main effects of electronic performance monitoring levels).

RESULTS

Measurement Assessments

Pretest results support the internal consistency of the electronic performance monitoring measure (composite reliability of .86 and variance extracted of .56). Confirmatory factor analyses yielded a goodness of fit index of .9659 (Bentler-Bonnet Non-Normed Index of .9586). Pretest results indicate this measure demonstrates a meaningful degree of nomological validity as it was significantly correlated with every indicator of IT capability (Grewal, Charkravarty, & Saini, 2010). Specifically, electronic performance monitoring scale shared a significant correlation with network connectivity (r=.32), directional flow (r=.22) and wireless systems (r=28).

Analyses of the full scale dataset suggest the measure of e-monitoring demonstrates acceptable levels of reliability (composite reliability .82) and similar factor patterns to those of the pretest results (See Table #2). Factor loadings ranged from .52 to .80 suggesting convergent validity. Discriminant validity was tested through the application of Fornell and Larker's (1981) test which recommends comparing the average variance extracted with the variance shared between the e-monitoring construct and all other constructs. The average variance extracted estimates were greater than the squared correlations between e-monitoring and each of the other constructs.

Reliabilities fell within acceptable ranges (between .71 and .86) for customer orientation, sales orientation and working hard (See Table #3). Confirmatory factor analyses revealed that indicators loaded significantly on its designated factor and produced a chi-square/ degrees of freedom ratio that was below the Marsh and Hocevar's (1985) criterion. The work smart scale reliabilities are marginal with composite reliability of .60, coefficient alpha of .59. The factor structure of work smart is similar to that of previous studies (e.g. Rapp et al., 2006)) as half of the factor loadings exceeded the recommended .50 cutoff. Given these loadings and reliabilities, a test was conducted to test for the possible effect of confounds in the work smart scale. Interfactor correlations average less than .24 indicating that on average less than six percent of the variance is shared among these constructs. Further, the comparison of work hard to work smart (i.e. comparing the average variance extracted with the variance shared) supports the discriminant validity. To gauge the discriminant validity between dependent variables, a comparison of the variance extracted to the variance shared between the sales orientation and customer orientation was conducted. Average variance extracted estimates were greater than the squared correlations between constructs. These results indicate these sets of concepts are distinct and discriminant validity supported.

Because both dependent and independent variables were assessed from the salesperson viewpoint, a common method bias analyses was conducted. A principal component factor analysis of all indicators extracted a five factor solution which explained over sixty percent of the total variation. These results suggest that variance may be reflected in the five variables of interest (i.e. work smart, work hard, sales orientation, customer orientation, and e-monitoring) rather than heavily influenced by the extraction of one common factor.

The two covariates were measured using pre-existing scales common to sales management. Salesperson experience level was measured using the number of years of experience industrial, firm and current position. Because each of these indicators is highly intercorrelated, separate MANCOVAs were

TABLE 3:
Dependent Variables: Scale Properties

Mean	Std. Dev.	Sample Items	# of Items	C.R.	Source(s)
		Work Hard			
13.98	3.32	I work long hours to meet my sales objectives. I work untiringly at selling a customer until I get an order.	3	.71	Sujan,Weitz and Kumar 1994
		Work Smart			
21.47	3.39	Every time I lose an order, I analyze what when wrong in great detail. I am always experimenting with new sales approaches.	4	.60	Sujan,Weitz and Kumar 1994
		Customer Orientation			
31.45	3.47	I try to bring a customer with a problem together with a product/service that helps him/her solve that problem. I try to figure out what a customer's needs are.	4	.82	Thomas, Soutar, and Ryan (2001)
		Sales Orientation			
9.39	4.33	I try to sell a customer all I can, even if I think it is more than a wise customer would buy. I try to sell as much as I can rather than satisfy a customer.	5	.76	Thomas, Soutar, and Ryan (2001)

conducted to verify each experience measure resulted in the same outcome. Organizational culture was defined as one which was supportive (Akaah, 1993; Wallach, 1983). The composite reliability for supportive culture was .86 and the indicator loadings (i.e. standardized betas) fell between .66 and .84.

Analyses

The MANOVA model exploring all four job outcomes indicates e-monitoring does have an effect. The overall F value of 3.77 has an associated probability level less than .0001. The Wilks lambda of .7291 implies that about 27% of the variance in salesperson reactions (i.e. working hard or smart and sales or customer orientation) is explained by the level of e-monitoring to which they are exposed. The univariate F statistics indicate much of this variance is attributable to the effect e-monitoring has on sales orientation (See Table 4).

While working hard does share some relationship with e-monitoring, results indicate this finding does not extend to working smart. Results of this analysis suggest salesperson willingness to work hard and e-monitoring levels is related (univariate F-statistic was 2.34 with associated probability level of .057). Further, the pattern of work harder tendencies is significantly higher when e-monitoring peaks. This difference is only significant when the highest levels of e-monitoring are compared to average or above average levels (See pairwise differences on Table 4). The pattern of averages across the five levels of e-monitoring and the finding that below average levels of e-monitoring actually tend to stimulate higher work harder motivation than average may suggest the relationship is not linear. Working hard does appear to be enhanced under high e-monitoring conditions – but may also be positively affected under less than average e-monitoring levels. Either high e-monitoring or lower levels of e-monitoring may result in building a salesperson's willingness to work hard. The first hypothesized relationship was partially supported as working hard is significantly related to monitoring. The support is qualified as partial since results may imply a possible curvilinear relationship may exist (See Figure #2). The second hypothesis was not supported as none of the working smart averages differed among any of the monitoring levels (See Table 4, F-value of 1.13).

TABLE 4:
MANOVA Results

Overall **F 3.77** (p<.0001)
Wilks' lambda .7291 Pillai's Trace .2881 Roy's Greatest Root .2671

	Low E-monitor n=35	Below Avg E-monitor n=42	Average E-monitor n=41	Above Avg E-monitor n=41	High E-monitor n=30	Univariate F-value
Work Hard Avg (Std.Dev)	13.88 (2.89)	14.52 (3.44)	13.07 (3.31)	13.51 (2.98)	**15.20** (3.75)	2.34 (p=.057)
Work Smart Avg	20.94 (3.48)	21.52 (3.82)	21.21 (3.16)	21.31 (3.53)	22.60 (2.62)	1.13 (p=.3423)
Sales Orientation Avg	6.71 (2.66)	7.88 (2.98)	9.63 (3.70)	**12.26** (4.90)	**10.38** (4.87)	11.79 **(p<.0001)**
Customer Orientation Avg	32.09 (2.52)	31.19 (4.06)	31.88 (1.95)	30.49 (4.98)	31.80 (2.38)	1.39 (p=.2401)

Bold indicates statistically significantly larger averages (i.e. pairwise comparisons indicate average was larger than at least two other levels of e-monitoring). See Figures 1 and 2.

A salesperson's orientation differs depending on the level of e-monitoring he or she is experiencing. This finding was demonstrated in the case of the third hypothesis (sales orientation) but not for the fourth hypothesis (customer orientation). Sales orientation is dramatically affected by e-monitoring. The univariate comparisons show that the majority of this variance in the overall MANOVA is attributable to sales orientation (i.e. the univariate F for sales orientation and e-monitoring is 11.79. Of ten possible pairwise comparisons, eight are significant and seven of these are consistent with the positive relationship expected in the third hypothesis (See Table 4). When monitoring is either at the highest or above average level, sales orientation averages tends to be significantly more than if monitoring is low. See Figure 3. Results here do support the notion that e-monitoring will increase salesperson's sales orientation and may suggest there is a threshold effect to this positive relationship.

E-monitoring does not appear to have an effect on salesperson customer orientation as the univariate F for this relationship was 1.39 (p= .2401). Thus the fourth hypothesis was not supported. Contrary to expectations, there was no evidence provided in these analyses to suggest electronic performance monitoring harms customer orientation.

The MANCOVA results indicate the pattern of conclusions does not change with salesperson experience level or supportive organizational culture. The separate MANCOVAs (three separate MANCOVA's –one for each form of experience (i.e. adjusting mean levels for the number of years the respondent had worked in sales in this industry, had worked for this firm in any capacity and had worked in his or her current sales position with the current firm)) controlling for experience level did not differ from those of the MANOVA. Results here mirror the significance levels reported without covariates – suggesting the effects of monitoring on this set of variables holds true even when experience level is controlled. Similarly supportive organizational culture did not reverse the significance levels of the MANOVA.

Conclusions and Managerial Implications

This research effort contributes to the growing area of the use of technology in sales by offering a focused look at managerial monitoring. Findings suggest an intriguing pattern of positive, but not negative effects. The

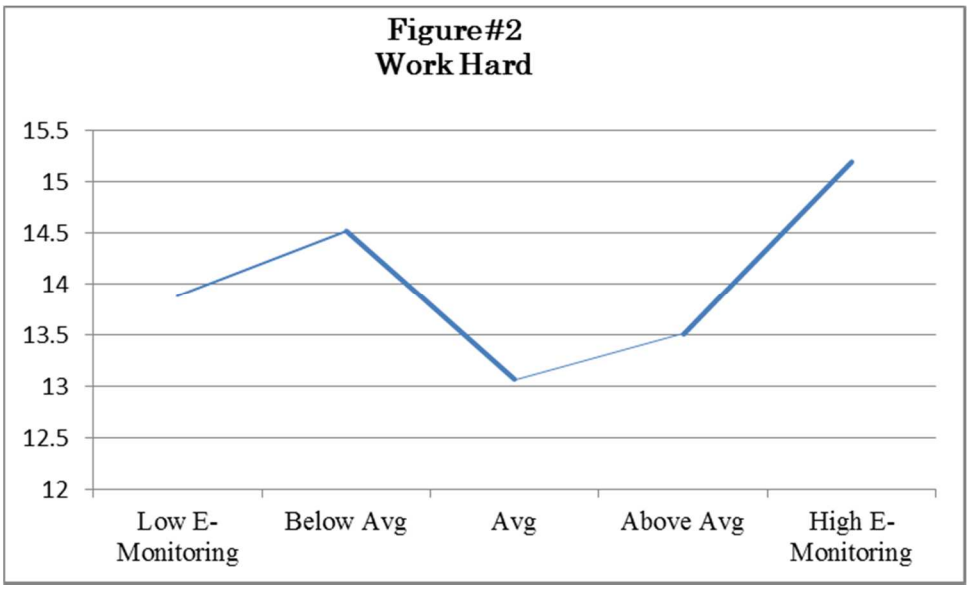


Figure: Wider lines indicate significant pairwise differences.

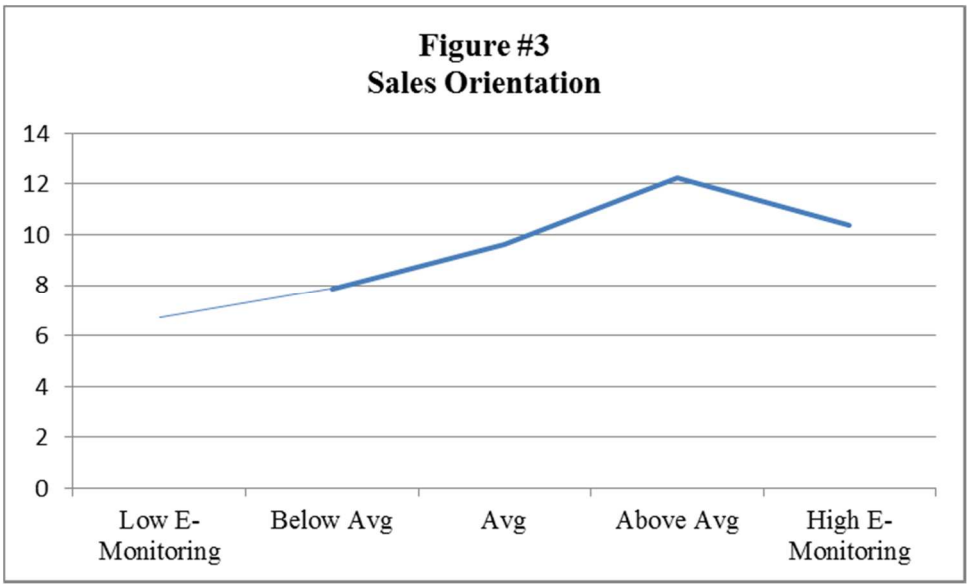


Figure: Wider lines indicate significant pairwise differences.

pattern of significant relationships here (i.e. significant relationships between managerial monitoring and two outcomes: sales orientation and working hard) suggests monitoring has the effect of turning attention to issues important to the sales firm (such as closing the sale or making numerous sales calls). This pattern is consistent with the pattern of correlations reported in previously published works. Specifically, the studies conducted by Baldauf, Cravens, and Grant (2002) and Onyemah and Anderson (2009) indicate monitoring is more likely to be correlated with variables that relate to the internal issues of the sales firm (e.g. salesperson's acceptance of manager control) than with eventual customer satisfaction. Moreover, by focusing on monitoring, the results reported here go beyond reporting

bivariate correlations of previously published studies. The analyses conducted in this research effort suggest some nuances to these shared positive relationships. A salesperson's tendency to exert more effort in the form of working hard may be enhanced with certain levels of monitoring.

Monitoring has a strong (and possible threshold) effect on sales orientation. Monitoring in this digital age may influence salespeople to exert higher levels of effort and adopt an end-result sales orientation. Sales managers today, for example, can track the progress from submitting proposals to gaining customer commitments in real time. The immediacy of monitoring sales outcomes without having to rely on salesperson self-reported progress may be motivating the field salesperson to increase his or her closing rate. Using the sales information system to monitor field salespeople will encourage the development of internal, company required goals such as those consistent with a sales orientation. Sales managers who are concerned with providing clear guidelines to autonomous field salespeople can use monitoring to increase field salesperson attention on internal goals.

Additionally this study adds to the growing body of literature that recognizes the unique effect of technology on managerial capabilities (Onyemah, Swain, & Hanna, 2010; DelVecchio, Deeter-Schmelz, &Anselmi, 2013). Monitoring performed by the field sales manager was framed around the use of the information system tools used by each of the participating firms in this study. The technologically enhanced forms of monitoring have an effect on sales orientation and working hard. Contrary to self-determination theories, these effects may not be entirely adverse (Deci, Connell, & Ryan, 1989). Consistent with the electronic performance monitoring (EPM) studies, this form of monitoring may encourage the pursuit of immediate or short term quantifiable outcomes (such as working hard to make more calls per day, or to gain closure and generate sales) (Stanton & Julian, 2002). The findings concerning sales orientation are dramatic (as the overall tests for significance were largely driven by the impact of monitoring on sales orientation).

Since a salesperson needs both sales and customer orientation to succeed (Franke & Park, 2006), monitoring carries managerial implications. Results here indicate the form of monitoring studied can affect sales but not customer orientation. Managers may be cautioned on just how their sales information system is being used or perceived to be used. Field salespeople are reacting to the ability of technologically enhanced monitoring to track closing the sale and showing revenue gains. If this effect of monitoring on sales orientation is combined with a previously low customer orientation, then monitoring may be serving to exacerbate an imbalance. Under these conditions (i.e. sales orientation outweighing customer orientation), the customer oriented criteria underwriting the monitoring system may need to be made more transparent. Increasing transparency may involve notifying salespeople of all criteria (both sales-outcome as well as customer-interaction criteria) being monitored.

The pattern of pairwise differences suggests working hard will be enhanced at either high or below average levels of monitoring (and similarly low at both average and above average levels). Since working hard tends shares a positive relationship with customer service levels (Rapp et al., 2006), sales managers should be aware that lower levels of monitoring may not be helpful. Sales managers who are concerned about their subordinate's motivation to work hard may want to examine their monitoring levels. Monitoring may signal to the salesperson a level of managerial concern, may provide accurate and useful data to help stimulate this form of effort. It is only when monitoring is above or below average that the salesperson is motivated to work harder. Salespeople in this sample were *either* more motivated to work hard when they believe they are not subjected to the scrutiny of managerial monitoring *or* when they believe the manager is paying close attention. Characteristics of the salesperson such as need for structure may explain these results as a high need for structure person would perceive monitoring as providing guidelines and clarity. A salesperson with a low need for structure may see this level of managerial monitoring as restrictive. In addition to a need for structure, salespeople in this sample may have reacted

differently to these levels of monitoring based on their internal locus of control. Those salespeople with a high (low) internal locus of control see themselves as more (less) in control and more (less) likely to perceive the purpose behind managerial monitoring as serving an informational purpose rather than controlling purpose (Shalley & Perry-Smith, 2001).

Sales orientation, however, is likely to be highest when monitoring levels are above average. Because salespeople do tend to be sales oriented (even when control systems focus on behavioral inputs), the findings here suggest this may be because of the monitoring levels (Johnson & Bharadwaj, 2005). When monitoring levels are above average, employees are more likely to be aware of EPM systems (Allen et al., 2007; Sewell & Barker, 2006). It may be this awareness of being watched that stimulates the need to show those revenue results and thus be sales oriented. Beyond this level (i.e. above average), however, sales orientation did not significantly increase which suggests a threshold effect. Sales managers are unlikely to enjoy incremental increases beyond some 'above average' level of monitoring. Thus the findings strongly indicate that a salesperson's sales orientation is highly reactive to managerial monitoring and managers seeking to stimulate this type of orientation should find approaching above average levels of monitoring would be effective. However, the gains in sales orientation may peak and not grow beyond this level of monitoring (See Figure 3). High levels of monitoring are not conducive to improvements in sales orientation beyond this point.

Contrary to expectations managerial monitoring shared no significant relationship with a salesperson's motivation to work smart or to be customer oriented. Both hypotheses, which anticipated a negative result of monitoring, were unsupported. The findings here indicate one but not both forms of motivation (i.e. working hard) and one but not both forms of orientation (i.e. sales orientation) are influenced by the level of managerial monitoring. This pattern is intriguing but certainly not conclusive. The two hypotheses, which expected a negative effect of EPM, were the two unsupported. At the very least, this lack of significance may cast a questionable light on the frequent speculation that the ability of field sales managers to monitor via SFA or CRM systems is a deterrent (Robinson, Marshall, & Stamps, 2005; Speier & Venkatesh, 2002; Sundaram et al., 2007). Perhaps managerial use of information technology to monitor their sales force carries more data, more objective indicators, more powerful analyses, and thus may be seen as more accurate and unbiased than traditional methods of monitoring. In their large scale survey, Onyemah and Anderson (2009) found managerial monitoring was significantly correlated with transparency of evaluative criteria. It may be this transparency which actually helps rather than harms outcomes (Lount & Wilk, 2014). This ability of electronic performance monitoring may support and enhance customer-interactions or customer service level (Sarpong & Rees, 2014). Monitoring may act as a clarification tool rather than an oppressive one.

Alternatively the lack of significance in these two hypotheses may be attributable to substantial heterogeneity in the sample of participating manufacturers. While this sample provided a rigorous test of the hypotheses, it may have been the sample's heterogeneity of selling situations that obscured the effect of monitoring. Respondents in this study were employed with a wide array of manufacturing firms (e.g. such as capital goods such as blast furnaces, to replacement parts such as pipe fittings). The complexity surrounding this array of manufactured goods may act as a contextual factor. Specifically EPM studies have identified task complexity as a moderator of the manager monitoring-subordinate outcome relationship (Mallo, Nordstrom, Martels, & Traxler, 2007). As the task becomes more complex, the need for more in-depth planning, strategic thinking and reaction to customer needs increases. These requirements are not impervious to managerial input – but would be better served by support and coaching rather than remote monitoring using technological tools. In short, one possibility is to test the expectation that high (low) monitoring will have a pronounced (moderate) negative effect when the selling task is highly (not) complex. While beyond the scope of the research effort reported here, the impact of sales task complexity may be worthy of future research.

Limitations and Future Research

Future research could explore the impact of task complexity using the conceptual framework of social facilitation theory. Since IT tools allow field sales managers to keep an even closer watch on sales activities, monitoring is continual rather than episodic. Salespeople aware of this ability then are also aware their managers can observe each step of the sales call. Social facilitation theory would claim this visibility should affect productivity depending, in part, on the complexity of the task. As the sales task becomes more information intensive, complex and service oriented, sales managers will need to understand the possible effect of task complexity. Field sales managers monitoring highly complex sales may find the more competent salespeople respond favorably to high levels of monitoring but the less capable do not.

While this study developed and pretested a new scale (i.e. field sales managers' use of EPM), not all of the previously validated scales performed as expected. Specifically a note of caution concerning the findings of working smart is in order. The lack of significance concerning working smart may be attributable to the measurement issues surrounding this variable. Past research has similarly found that not all items in the working smart scale are tapping one concept (Rapp et al., 2006). Working smart in this, the digital age, may place more emphasis on the use of analytical tools (such as the creative use of those tools to self-manage). While working hard is reflected in the frequency and routinized use of technology, our current scales measuring working smart may fall short of tapping the creative and sophisticated use of analytical tools. Additional research may be needed to improve the unidimensionality of the working smart scale – and perhaps to more clearly tap the dimension of conducting thorough analytics.

While this sample of heterogeneous industrial salespeople provided a rigorous test of hypotheses, this sample is less suited to establishing causal relationships. While we typically think about the effect the manager's behaviors will have on the sales subordinates, the reverse effect may be feasible. For example, the relationship between working hard and monitoring may be reversed. Managers may monitor more when they are concerned about performance. If the salesperson's efforts at working hard are escalating and not productive then managers may monitor more. If the salesperson's efforts at working hard are productive, then monitoring may be deemed unnecessary. In controlled experiments, Alge, Ballinger, and Green (2004) found leaders tended to increase their monitoring of subordinates over time when the leader expected low performance from the subordinate. Repeated measures and longitudinal designs may reveal these patterns unavailable in a heterogeneous cross sectional study.

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APPENDIX A:
Comparison of Respondent to NonRespondent Companies

	Proportion of Companies Respondents[a]	Proportion of Companies: Nonrespondents[b]	Significance Tests
Number of Employees			**Chi Square=.20 d.f.=4 p= .99**
20 – 49	39.5	56.5	
50 – 99	31.5	30.4	
100 – 249	21.1	8.8	
250 – 499	5.2	0.0	
500 – 999	2.6	4.3	
Annual Sales			**Chi Square=1.12 d.f.=6 p= .98**
$2.5 – 5.0 million	18.5	26.1	
$5 – 10 million	10.5	39.0	
$10 – 20 million	26.3	26.1	
$20 – 50 million	31.6	0.0	
$50 – 100 million	7.9	0.0	
$100 – 500 million	2.6	4.4	
$500 million – 1 billion	0.0	4.4	

Note: This comparison conducted for Sample 1 (n=101).
[a]38 Companies employing salespeople who completed surveys
[b]23 Companies employing salespeople who did not respond

Comparison of Respondents to Overall

	Percentage of Lexis-Nexis Dossier Database	Percentage of Respondents from American Business Directory Database[c]	Significance Tests
Annual Revenue			**Chi Square=.75 d.f.=6 p= .99**
$2.5 – 5 million	33.3	7.0	
$5 – 10 million	22.9	12.9	
$10 – 20 million	18.0	31.9	
$20 – 50 million	14.2	21.1	
$50 – 100 million	5.2	16.2	
$100 – 500 million	4.3	10.8	
$500 million – 1 billion	1.5	0.0	

Note: In both databases, manufacturers (SIC 2000and 3000) headquartered in Southeastern USA.
[c]Full scale sample, n=189.

APPENDIX B:
Comparison of Sales Information System Characteristics

Overall MANOVA F=1.91 (probability = .11), Wilks Lambda = .92					
Variable	**Definition**	**Method of Scoring[a]**	**Sample[b]**	**Mean**	**Std. Dev.**
Document Form	Degree to which the sales information system uses documents in paper versus electronic forms.	Scored low for manual system, e.g., paper based, and high for electronic, e.g., Web-based.	1 2	2.74 2.52	1.30 1.25
Directional Flow	Degree to which the computer network system allows many directional flows of information.	Scored low for network system restricted to input only, e.g., field sales providing input to headquarters, and high for a system allowing both input and access by many departments.	1 2	3.06 3.18	1.26 1.32
Connectivity	Degree of connectivity of the computer network system.	Scored low for mainframe dependent system and high scores for systems using LAN or Web to combine both personal and mainframe computing.	1 2	3.12 2.82	1.48 1.34
Wireless	Degree to which the personal computer communication system takes either wired or wireless forms.	Score low for wired and high for wireless.	1 2	2.54 2.61	1.01 1.00

[a]Values ranged from 1 – 5.
[b]Sample 1 n=101, Sample 2 n=189.