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NEWSPAPER E-COMMERCE ADOPTION: A FIRST-MOVER PRECURSOR AND CONSEQUENCE, 1994-2006

Jerry Allison, University of Mount Olive

ABSTRACT

This paper empirically examines first-movership in the newspaper industry. The first hypothesis generated shows the size of a firm, as measured by advertising rates, is a precursor to which firm was a first-mover into e-commerce. The second hypotheses generated shows a surprising result coming from first-mover adoption of e-commerce. The firms that were first-movers actually experienced a decrease in size, as measured by advertising rates. The two hypotheses in conjunction show that the very reason some firms may have adopted e-commerce may have also caused a first-mover disadvantage. This study extends first-mover theory and e-commerce theory in a very understudied industry.

INTRODUCTION

Technological innovation in general supports the likelihood of affecting almost everything in management. New technologies can lead to environmental change (Carroll, 1994), initiate a change in industry structure (Porter, 1985), modify competition in an industry, (Nelson, 1994) and can vary firm performance (Zahra & Bogner, 1999). Technological innovation may have far reaching implications. One such example is e-commerce.

The hope for e-commerce technology was to reinvent how business is conducted (Boudreau, Loch, Robey, & Straud, 1998; Kambil, Nunes, & Wilson, 1999; Weil & Weil, 1999). The century change and demise of many e-firms created uncertainty among many (Coltman, Devinney, Latukefu, & Midgley, 2001; Moon & Frei, 2000; Rosen & Howard, 2000; Shapiro, 2000; Storey, Straub, Stewart, & Welke, 2000; Walton, 2000). Nevertheless, e-commerce remains a force to be considered. The introduction of this channel for sales, advertising, distribution, and customer relationships has created a plethora of questions, not the least of which is how e-commerce modifies an entire industry.

This paper combines first-mover advantage theory and e-commerce theory in the newspaper industry. One hypothesis is developed to test a first-mover precedent and one hypothesis is developed to test a first-mover consequences. First-mover advantage and e-commerce are well researched but have not been applied to the newspaper industry. Duvakova, Andreeva, Duvalova, and Ivasiv (2016) and Makadok (1998) investigate e-commerce and first-movership in banking while Borenstein and Saloner (2001) and Gregorio, Kassicieh, and de Gouvea Neto (2005) mentioned both superficially.

This study extends management theory in three directions. First, first-movership theory is extended to show that the size of the firm may be a factor in who will be an e-commerce first-mover. Second, e-commerce theory is extended by demonstrating first-mover advantage existence and what the advantages are. Finally, newspaper industry theory is extended in a seldom researched industry.

FIRST MOVER ADVANTAGE REVIEW

There appears to be widespread consensus about the definition of first-mover. This paper will use the definition of first-mover as the first firm to offer a distinctively new product to the market (Covin, Slevin, & Heeley, 1999; Robinson & Fornell, 1985).

Definitions for first-mover advantage are nebulous. General definitions suggest superior performance (e.g. Boulding & Christen, 2003; VanderWerf & Mahon, 1997) and benefits derived from introducing a new product (Golder & Tellis, 1993; Patterson, 1993; Baker & Becker, 1997) while some are operationalized as profits (Jensen, 2003) and larger market share (Carpenter & Nakamoto, 1989). Two definitions seem to stand out from the others. Porter (1985) defines first-mover advantage as augmenting a firm's position through acquiring sustainable sources of cost advantage or differentiation and establishing the ability to define competition in relationship to the innovation. Grant (2002), using a resource-based perspective, states first-mover advantage is obtaining resources and capabilities a follower cannot match. Porter (1985) and Grant (2002) grasp two aspects of being a first-mover, improving market position and strengthening the resource base of a firm. Thus, first-mover advantage occurs when a firm offers a new product or service, that product or service improves and sustains the firm's market position, and the product or service improves the firm itself. One can then observe first-mover advantages in terms of market share increases or in new capabilities of a firm among other things.

It has been noted that first-mover advantage is not available for all industries (Kerin, Varadarajan, & Peterson, 1992). First-mover advantage does exist in banking (Makadok, 1998), is less likely in the service industries (Ketchen, Snow, & Street, 2004; Song, Di Benedetto, & Zhao, 1999), and not at all among the retailers (Nikolaeva, 2005) although one sector where an advantage exists is in online book sales (Weinstein & Standifird, 2010).

Regarding market type, Robinson (1988) discovered that first-mover advantages exist in consumer markets when a product has a low purchase amount while in industrial markets the first-mover advantage increases as the purchase amount increases. Cui & Lui (2005) studied multinational firms in an emerging market economy and found first-mover advantage is more pronounced in emerging markets.

There are factors influencing the magnitude of first-mover advantage. Low purchase amount in a consumer market and moderate frequency of purchase contribute to an increase in first-mover advantage (Kerin et al., 1992; Porter, 1983). Thus, the newspaper market where subscriptions are inexpensive and purchased with moderate frequency should have higher first-mover advantage than other markets. If technology is process encapsulated, then first-mover advantage may increase over when technology is a product component (Christensen, Suarez, & Utterback, 1998; Kerin et al., 1992).

The firm size firm may influence first-mover advantage. Smaller firms are more likely to be first-movers (Lowe & Atkins, 1994). On the other hand, large first-movers perform better than small first-movers (Cui & Lui, 2005).

Industry environments can influence the probability not only of establishing first-mover advantage but also the magnitude. Covin et al. (1999) demonstrated the type of competitive environment and strategy employed by the firm affect first-mover advantage. First-movers in a highly competitive environment such as the newspaper industry may see first-mover advantages by adopting a strategy of sales growth or lower financial costs.

Arguably the most comprehensive study on factors contributing to first-mover advantage is Gomez-Villanueva and Ramirez-Solis (2013). This study created a model for advantages stemming from being a first-mover. More importantly for the study at hand is that Gomez-Villanueva and Ramirez-Solis (2013) provide insight as to the types of goods and industries that may or may not provide advantages. They indicate that for mature industries, firms presenting new goods may experience a disadvantage. However, when those goods are consumer goods and become frequently purchased, then there is a distinct advantage.

E-COMMERCE AND RELATED LITERATURE

Some definitions of e-commerce center around an electronic transaction; these definitions are similar. Broadly, e-commerce is any transaction handled electronically (Sterrett & Shah, 1998). This definition coincide with others, namely, electronic exchange transactions (Wood, 2001) and electronic exchanges of value (Senn, 2000; Standifird, 2001; Wang, Head, & Archer, 2002). Implicit in these views is an electronic transactions conducted through an automated, electronic network.

Other definitions center around an electronic exchange of value. Some definitions view the transaction as a simple exchange (Oelkers, 2002; Wood, 2001) while others incorporate exchange of value and still others include the exchange of ownership (e.g. VanHoose, 2003). A few speak of electronic value (Rosen, 2000; Standifird, 2001).

This paper makes the following definition for e-commerce: the electronic contracting for the exchange of value through the use of computing and communication technology. This definition not only incorporates the major aspects of the above-mentioned definitions but also is applicable to the current study. The foci of electronic contracting, the value exchange, and automation in other definitions are included. This definition confines e-commerce to the transaction level and is consistent with other literature (e.g. Pillutla & Allison, 2002).

Multiple authors have examined the issue of how e-commerce affects business management (Afuah & Tucci, 2001; Boudreau et al., 1998; Globerman, Roehl, & Standifird, 2001; Johnston & Mak, 2000; Kambil et al., 1999; Kickul & Gundry, 2001; Krishnamurthy, 2003; Mahadevan, 2000; Senn, 2000; Weil & Weil, 1999). Several researchers have examined the phenomenon of quick information gathering and dissemination in more detail (Johnston & Mak, 2000; Kickul & Gundry, 2001; Krishnamurthy, 2003). Also, e-commerce has opened up a whole new world of advertising possibilities (Hoque, 2000; Plant, 2000). This is especially important in the newspaper industry where the majority of income earned by a newspaper firm is from advertising. Newspaper firms can utilize e-commerce to collect data on individuals and target advertising using a variety of electronic means.

Several researchers have focused upon the effect that e-commerce has upon a firm's operations (e.g. Johnston & Mak, 2000; Maddox & Blankenhorn, 1998; Mahadevan, 2000). One theme is the reduction of costs in an organization. Objects that can be delivered electronically can now arrive instantly and incur no additional costs such as outside delivery or delayed production. This costs savings is echoed through the literature (Boudreau et al., 1998; Weiser & Brown, 1998). One example is in the newspaper industry where reporters transfer electronically stories to editors, the editors transfer finalized stories electronically to the layout department, the layout department designs the paper electronically, and then the layout department transfers the layout electronically to the production department.

Regarding sales, there are several areas in which multiple authors agree. First, e-commerce can bring about increased product value (e.g. Krishnamurthy, 2003; Targett, 2001). Second, the advent of e-commerce creates a brand new distribution channel for digital products (e.g. Afuah & Tucci, 2001; Krishnamurthy, 2003). Next, e-commerce makes time and geography in terms of shopping an insignificant issue (e.g. Oelkers, 2002; Standifird, 2001). Electronic commerce also creates a truly worldwide marketplace (e.g. Afuah & Tucci, 2001; Boudreau et al., 1998; Globberman et al., 2001; Jones, 1998; Oelkers, 2002; Pai, 2000). Finally, e-commerce may allow for the instantaneous collection and analysis of sales data. However, in recent years the protection of that data as well as other confidential data has become of great concern (Neal & Ilsever, 2016).

NEWSPAPER INDUSTRY RESEARCH

Management research in the newspaper industry has not been overwhelming (e.g. Carroll, 1984a, 1984b; Carter, 1984; Gilbert, 2001; Gomez-Mejia, Nunes-Nickel, & Gutierrez, 2001; Wishart, Elam, & Robey, 1996). Two research pieces examined the role technology has had on the newspaper industry. Carter (1984) determined organizational structure depends upon the degree and type of computer applications as well as extent of environmental uncertainty. The second study, Gilbert (2001), examined how technology could impede viability of a firm and concluded by stating management's framing of the threat issue and organizational processes are a determinant of strategic commitment.

The newspaper industry has several properties that are desirable for researchers such as Carter (1984) and Gilbert (2001). Newspapers are one of the oldest commercial activities in this country and have seen much technological change, some threatening the industry's existence. Finally, the industry's structure of operations is not complex, allowing considerable control over research extraneous variables.

FIRST-MOVER PRECURSOR HYPOTHESIS

The e-commerce adoption may necessitate structural and cultural changes of a newspaper firm. Adoption changes the technical infrastructure and, consequently, the organizational structure (Turban, Lee, King, & Chung, 2000). Boundaries between departments can be reduced through e-commerce so a flatter organization results (Singh & Waddell, 2004). Also required by e-commerce is innovative thinking (Hoque, 2000) and a learning attitude (Tapscott, Lowy, & Ticoll, 1998). E-commerce may be essential to foster creative input from employees (Singh & Waddell, 2004). Firms that do not have innovative thinking or a learning attitude may face stiff resistance internally to the adoption and implementation of e-commerce.

Larger firms generally require more complex communication (Durkheim, 1933; Simmel, 1992; Spencer, 1898) while early and honest communication is suggested for e-commerce adoption (De & Huefner, 1995; Singh & Waddell, 2004). Larger firms are likely to exhibit behavior formalization (Blau & Schoenherr, 1971; Caplow, 1957; Chapin, 1951; Gruskey, 1961; Pugh, Hickson, Hinings, & Turner, 1969; Tsouderos, 1955). E-commerce adoption in a larger firm may involve a lengthy process of review and implementation. Complex communication and formalization can make becoming an e-commerce first-mover difficult (Haveman, 1993). However, larger firms are pressured to conform to environmental changes more than smaller firms (Dobrev & Barnett, 2005) and have greater resources, enabling movement toward

technological change (Gomez-Villanueva & Ramirez-Solis, 2013; Haveman, 1993). In spite of these factors, first-movers in a market still tend to be smaller firms (Lowe & Atkins, 1994).

Not only subscribers but advertisers patronize the firm but for different reasons. Subscribers purchase the paper for news and complements and advertisers seek to acquire additional customers. Subscribers do not “need” advertisers but advertisers need subscribers. The fewer subscribers to a newspaper, the less likely advertisers will advertise in that newspaper (Miljan & Howorun, 2003). Consequently, small circulation newspaper firms will have little revenue coming from subscriptions and advertising. This could lead to extending revenue by e-commerce adoption. A newspaper firm increasing its subscribership through e-commerce could have a desired positive effect on advertising (Peng et al., 1999).

Advertising amounts have been linked to firm size (Picard, 1998), partly due to an advertising and circulation link (Geyskens, Gielens, & Dekimpe, 2000). However, this link is not linear, meaning as circulation increases advertising increases disproportionately.

Since advertising is a proxy for firm size, larger firms may have formalized cultures not conducive to change. Thus, initiating technological change such as e-commerce may be difficult. As a result, the following hypothesis is offered:

- H1 In a given newspaper market, the lower a firm's advertising revenue when compared to other firms in the market, the more likely that firm is to be a first-mover into e-commerce.*

The ramification of this hypothesis is a larger newspaper firm may have a lower incentive to being an e-commerce first-mover. However, once change is made by other firms, larger firms may feel more pressure to adopt. This change may need planning far in advance so firm structure and culture can be altered strategically.

FIRST-MOVER CONSEQUENCE HYPOTHESIS

The e-commerce adoption by a firm may have several benefits for advertisers. One benefit may be a reduction in advertising costs (Boudreau et al., 1998; Connor & O'Keefe, 1997). E-commerce allows an advertiser to request potential customers with certain characteristics only see certain advertisements, allowing the advertiser to expose the ads to those who may be interested. Another value created by e-commerce is the type of advertisement available. E-commerce advertising has the potential of much more variety (Afuah & Tucci, 2001; Krishnamurthy, 2003) with pop-up ads, placing an advertisement directly in front of a subscriber, and display ads, having rich color, animation, movies, and sound.

A newspaper firm adopting e-commerce may provide advertisers with a wide array of cost effective possibilities and, consequently, generating more advertising revenue for the newspaper firm (Peng et al., 1999). But a first-moving newspaper firm has a temporary monopoly on this type of advertising and has the potential additional advertising revenue. Thus, the following hypothesis can be made.

- H2 In a given newspaper market, a newspaper firm that is the first-mover into e-commerce will see a more positive change from preadoption advertising revenue to postadoption advertising revenue than other firms in the market.*

DATA SET

The sample came from the daily newspaper industry and not weekly or monthly publications. One reason for selecting the newspaper industry is the lower complexity over other industries, allowing for the control of variables that would otherwise be factors (Gomez-Mejia et al., 2001) and for results that are more pure. Also, newspaper first-mover advantage may be greater than other industries due to inexpensiveness and moderate frequency of subscription purchase (Kerin et al., 1992; Porter, 1983). Another reason for selecting the newspaper industry is readily available data since publishers commonly release subscription numbers to influence advertisers.

Several competitive markets in the United States were chosen for this study from divisions created by the U.S. Census Bureau (OMB, 2004). These divisions are metropolitan statistical areas and micropolitan statistical areas. Metropolitan statistical areas have at least one urbanized area of 50,000 people or more while micropolitan statistical areas have an urban cluster area between 10,000 and 50,000 people.

Several studies have used metropolitan statistical areas to study economic and social issues. Oh (2005) uses metropolitan statistical areas to show crime and employment opportunities affect growth of large cities, Skinner (2004) uses metropolitan statistical areas to examine labor markets in urban areas, and Blau, Kahn, and Waldfogel (2004) examined the impact of welfare benefits in certain metropolitan statistical areas.

In management, metropolitan statistical areas have been used to measure geographic influence upon initial public offerings and acquisitions by biotech firms (Stuart & Sorenson, 2003).

The data source for this study was the Editor & Publisher Yearbook, 1994 through 2006. This source is a standard reference tool for journalists (Weiner, 1975) and contains listings for all U.S. and Canadian daily papers. Daily paper data consists of location, ownership group, circulation, prices, and commodity consumption, broken down by component. Editor and Publisher Yearbook sends an annual questionnaire to every U.S. newspaper firm and attempts to obtain a 100% response rate. The Editor and Publisher Yearbook has been used in research, notably in studies regarding circulation (Kesler, 1981), foreign-language newspapers in the U.S. (Dunn, 1984), minority owned newspapers (Franklyn, 1985), how the press had been issued subpoenas (Dalglish, 2003), the relationship between circulation size and advertising rates (Picard, 1998), and women in newsroom management (Lacy, Davenport, & Miller, 1998). Thus, it would be consistent for a newspaper industry study to use *The Editor and Publisher Yearbook*.

TESTING METHODS

A random sample of 200 metropolitan and micropolitan statistical areas were chosen for this study. Since the variable firm size is related to geographic population, the statistical area list was stratified between large city metropolitan statistical areas, other metropolitan statistical areas, and micropolitan statistical areas. Then a proportionate sample was randomly chosen from each area grouping. Agresti and Finlay (1997) recommend a stratified random sample three groups are being contrasted as in this case.

After a statistical area is selected, the newspaper firms inside of that area are automatically chosen to create a cluster sample which is often used to select geographic regions

for study (Agresti & Finlay, 1997). This sample allowed complete groups of competitive newspaper firms to be chosen to examine first-mover status.

With data gathered, the statistical method for analysis was logistic regression for Hypothesis 1 and analysis of variance (ANOVA) for Hypothesis 2. Logistic regression can use continuous, discrete, or categorical data as the independent variables to predict group membership, a categorical dependent variable (Allen, 1997; Tabachnick & Fidell, 2001). Thus, logistic regression can predict first-mover or later-mover status based on characteristics of the firm. Logistic regression is used in medical research (e.g. Ball, Kirkpatrick, & Brenneman, 2005; Meijer et al., 2005; Vourakis, 2005), in behavioral marketing prediction (e.g. Moe & Fader, 2004; Roberts, 2003), and organizational change examination (e.g. Bergh, 2001; Bonn, 2000). Variables were entered into the logistic model and rejected one at a time based on insignificance.

Analysis of variance (ANOVA) tests for statistical differences among multiple continuous dependent variables and multiple discrete independent variables (Tabachnick & Fidell, 2001). In this study, three continuous dependent variables -- change in circulation, change in price, and change in advertising between pre- and post- e-commerce adoption -- are being tested against several discrete independent variables and control variables.

THE DEPENDENT VARIABLES

The dependent variable for Hypothesis 1 was first-mover status, a categorical variable. Each sample firm was examined to determine first versus later e-commerce adoption. E-commerce adoption was defined as utilizing the Internet for customer benefit, regardless of the scale. This variable was coded 1 for first-mover and 0 for other. The Editor & Publisher Yearbook editions between 1994 and 2006 supplied this data since there was an annotation for an electronic edition. The firm with this entry showing earliest was considered the first-mover. In the case where two or more firms enter the same year, the firms were contacted as to the actual date of entry.

Advertising was the dependent variable for Hypothesis 2. A proxy for advertising is the open inch rate, how much a newspaper charges per inch of column space. Traditional economics implies the more advertising customers a newspaper firm has, the greater the open inch rate should be. The open inch rate has been used in research to measure a newspaper firm's amount of advertising (Picard, 1998; Schargrotsky, 2002). As with circulation, the open inch rate prior to e-commerce adoption by the firm and the open inch rates for three years after adoption was recorded. The difference of the average of three years post-adoption open inch rate and one year pre-adoption open inch rate of first-movers will be compared to the same difference of non-first-movers to see if there is a statistical difference.

INDEPENDENT VARIABLES

For each hypothesis, there are different independent variables. The independent variable for Hypothesis 1 was the open inch advertising rate which *Editor & Publisher Yearbook* provides because it is the most comparative rate among papers (Picard, 1998). The open inch rate in the year the first-mover adopts e-commerce was used. The independent variable for Hypothesis 2 is whether a firm was a first-mover or not. First-movers were coded with a 1 while later movers are coded with a 0.

CONTROL VARIABLES

Capturing differences in the dependent variables for both hypotheses, a control variable for geographic region was created since some parts of the country might have a cultural leaning toward reading newspapers. Advertising prices might also be affected by geographic region. The U.S. is broken up into four regions: the North East, the South, the Midwest, and the Pacific region. Dummy variables were set up for North East, South, and Midwest. A newspaper from any one of these regions got a 1 in the appropriate dummy variable. Firms from the Pacific region had all zeros in the dummy variables.

Another control variable was metropolitan/micropolitan statistical area size. Two dummy variables were created where metropolitan statistical areas without a large city received a 1 in the first and a 0 in the second and micropolitan statistical areas receive a 0 in the first variable and a 1 in the second. The metropolitan statistical areas containing large cities received a 0 in both variables.

Survivorship could be a variable influencing the study. If a newspaper firm did not survive to the second or third year after e-commerce adoption, only data from one or two years may exist. For these existing data was used but two dummy variables, one for each case, were created to code as 1 if a firm fails to survive during the given period.

Another issue might be ownership change during the e-commerce adoption period. A dummy variable was created and coded as 1 when the ownership structure changed over the three years' data.

CONSTRUCTION OF THE DATA

The initial sample was randomly chosen stratified statistical areas, consisting of six major metropolitan areas, 73 metropolitan areas, and 121 micropolitan areas. Data collection for the major and areas and metropolitan areas went as planned but few of the micropolitan areas had multiple competing newspapers. As micropolitan areas were eliminated and replaced, the entire population of micropolitan areas was exhausted. Only 43 had multiple competitive newspapers. Thus, the sample comprised of 6 major metropolitan areas, 73 metropolitan areas, and 43 micropolitan areas.

Several of the statistical areas had multiple firms adopting e-commerce the same year. In each area, the individual newspapers were contacted. In several cases, a first-mover could be determined; however, in other cases the first-mover could not be determined. Several statistical areas had to be eliminated. This left 3 major metropolitan areas, 62 metropolitan areas, and 37 micropolitan areas remaining for the analysis.

TESTING FIRST-MOVER PRECURSOR

When analyzing variable correlation for Hypothesis 1, it was found that the circulation was very highly correlated with the advertising rate. The Pearson correlation coefficient was used for this test and showed 0.942 which was significant at the 0.01 level. No other pairs of variables were highly correlated. Since the advertising rate was essentially duplicated by the circulation, this variable was dropped from the Logistic Regression test.

Expected frequencies were run and about 23.7% of the cells still had expected frequencies less than five. The size of the MSA was creating the additional problem. To fix this

problem the large MSA and the regular MSA were combined. Logistic Regression would then use a control variable that compared small MSAs to other MSAs. After this control variable was recoded, the expected frequencies met the assumptions of the test.

Logistic Regression requires linearity in the logit and is at the same time very sensitive to multicollinearity. When linearity was checked, all variables had a p-value greater than the standard of 0.0125 (Tabachnick & Fidell, 2001), showing that there was support for linearity in the logit.

The final model to be tested consisted of the dependent variable of first-mover status and the independent variables of firm age, pre-adoption circulation, ownership type, and control variables of MSA size and region. After performing logistic regression, the first check is to see if the full model is significant when compared to a constant model. This is done by subtracting the χ^2 value of the full model from the χ^2 value of the constant model and then determining if the result is a significant χ^2 value. The full model had a χ^2 value of 310.01 and the constant model had a χ^2 value of 344.703 giving an extremely significant difference of 34.693 ($p < 0.001$).

The next step is to examine each of the variables to determine which are significant. Of the three independent variables tested, circulation showed to be strongly significant while the other two were not significant. Table 1 shows the results of the reduced model with only significant variables in it. The full model and the reduced model have little difference.

Table 1. The Logistic Regression Tests Results for Each of the Variables

Parameter Estimates									
		B	Std. Error	Wald	df	Sig.	95% Confidence Interval for Exp(B)		
							Exp (B)	Lower Bound	Upper Bound
First Mover	Intercept	.347	.231	2.251	1	.134			
	Circulation prior to first-mover adoption	-2.364E-05	.000	20.859	1	.000	1.000	1.000	1.000
	Small MSA	1.127	.315	12.800	1	.000	3.086	1.665	5.722

Table 1 shows the coefficient for circulation prior to first-mover status is negative, indicating the larger the circulation, the less likely the firm is to adopt e-commerce. Indirectly, this supports Hypothesis 1 since advertising rates were strongly correlated with circulation. The test was run again using advertising rates instead of circulation with the results were approximately the same. The results of this analysis are shown in Table 2.

Table 2. Result of the Logistic Regression Replacing Circulation with Advertising Rate

		Parameter Estimates					95% Confidence Interval for		
		B	Std. Error	Wald	df	Sig.	Exp (B)	Exp(B)	
First Mover								Lower Bound	Upper Bound
No	Intercept	1.343	1.091	1.517	1	.218			
	Age	-3.066E-03	.004	.530	1	.467	.997	.989	1.005
	Ad rate prior to firm adoption	-3.076E-02	.007	18.841	1	.000	.970	.956	.983
	Small MSA	1.053	.318	10.985	1	.001	2.867	1.538	5.345
	Type of ownership	2.043E-02	.354	.003	1	.954	1.021	.510	2.043
	Northeast	-.495	.491	1.016	1	.313	.609	.233	1.596
	South	-.189	.497	.145	1	.703	.828	.313	2.191
	Midwest	-4.426E-02	.454	.010	1	.922	.957	.393	2.330

TESTING FIRST-MOVER CONSEQUENCE

The analysis of Hypothesis 2 removed univariate and multivariate outliers from the analysis first. In this instance 23 firms were removed from the study. This left 215 firms for the study.

The advertising rate variable was not normally distributed and very right skewed. Several transformations were applied but there was too much data centered at the median to get rid of the kurtosis. Homogeneity of variances could not be obtained without a transformation. In this event, one option is to decrease the significance level from 0.05 to 0.01 (Tabachnick & Fidell, 2001). The remainder of the analysis will use the 0.01 significance level.

ANOVA produced the results in Table 3. The model shows marginal significance at the 0.01 level and the significance of the first-mover variable is $p=0.01$. The coefficient for first-mover is negative indicating nonfirst-movers may have had better results with the advertising rate change than first-movers.

Table 3. ANOVA Coefficient and Significance Results for Hypothesis 2

Tests of Between-Subjects Effects		
Dependent Variable: 28root of adjusted circulation		
Source	df	F
Corrected Model	7	4.82**
Intercept	1	.918
Small MSA	1	9.72**
First mover	1	.437
Democrat	1	.243
Independent	1	.150
Change in ownership	1	.191
GNS subscription	1	2.674
Other subscription	1	8.06**
Error	200	(134.85) ^a

a. Values enclosed in parentheses represent mean square errors.

*p<.05 **p<.0

OVERVIEW OF HYPOTHESES AND FINDINGS

This paper brought together relevant research into first-movership, e-commerce, and the newspaper industry to develop hypotheses that extend the theory in all three areas. The hypotheses sought to extend management theory to fill gaps in first-mover theory, e-commerce theory, and newspaper industry theory.

Prior to this study, first-mover theory had been developed showing the relationship of firm size to first-mover advantage (Cui & Lui, 2005; Lowe & Atkins, 1994). First-mover theory also shows the relationship of e-commerce to first-movership (Huang, Makoku, Newell, & Galliers, 2003; Makadok, 1998; Nikolaeva, 2005). However, the relationship of firm size with first-movership into e-commerce had not been examined. This paper fills that void.

Hypothesis 1 was supported very strongly. This indicates that the smaller a firm is in a competitive market, the more likely it is to adopt a new technology such as e-commerce. These findings certainly agree with the studies mentioned in the previous paragraph.

Hypothesis 2 showed there may be first-mover disadvantage. The supported results showed that first-movers may experience lower advertising rates than later movers when adopting e-commerce in the newspaper industry. This finding is worthy of further study.

PRACTICAL APPLICATION

From the first hypothesis test, lower advertising rates were directly related to the firm adopting a first-mover stance. However, the resulting coefficient was extremely small. The test also showed that firms in smaller MSAs were more likely to adopt e-commerce than counterparts in larger MSAs. The coefficient on this variable was much larger than that of the variable.

In the case of firms in small MSAs and having lower advertising rates, the probability of adopting e-commerce first was the greatest since both significant variables are collaborating. In the case of high advertising rate firms in small MSAs, the probability of being a first-mover was

second greatest because the small MSA variable is the only one operating but the effects of this variable are greater than for advertising. The third most likely case occurs when a firm is in a large MSA with low advertising rates. The advertising rate variable is the only one operating but its coefficient is extremely small. Finally, a firm in a large MSA with advertising rates is least likely to be a first-mover since neither of the variables have an influence.

Regarding the consequences of first-movership related to advertising rates, results differed by MSA size. In either case, the non-first-mover experienced a better advertising rate effects. But in the small MSA, the change in the first-mover's advertising rate was positive while in the large MSA the change in the first-mover's advertising rate was slightly negative. Thus, a first-mover in a small MSA had a significantly better advertising rate change than a first-mover in a large MSA. The best change in advertising rate was to be a non-first-mover with lower advertising rates. In summary, it was better for a firm to wait to adopt e-commerce instead of becoming a first-mover indicating the industry has a first-mover disadvantage for e-commerce adoption.

One reason for the unexpected results might be many newspapers adopted e-commerce reacting to other newspapers adopting and not from strategic decision. This was evident in initial conversations with newspaper editors. Most claimed the need to adopt e-commerce because other newspaper firms had. Had many newspaper firms waited to adopt a web presence strategically, the benefit may have been much greater.

LIMITATIONS TO THE STUDY

The limitations to this study are twofold. First, the findings cannot be extended necessarily to other industries. The data and conclusions pertained solely to newspaper firms. Additional study could be done to generalize these results to other industries. The second limitation is conclusions are based on small MSAs versus regular MSAs. The large cities had little sample representation and conclusions might have differed had large cities been a larger part of the sample. Thus, the results found may apply to a portion of the newspapers industry instead of the whole.

DIRECTION FOR FUTURE RESEARCH

This study showed that newspaper advertising rates are a predictor of first-movership. One topic for future research is to look at operation costs to see if those had an impact on first-movership. Additionally, measurements stemming from firm resources and capabilities could be examined since these are suggested to have an influence upon whether a firm is a first-mover or not (Suarez & Lanzolla, 2007; Magnusson, Westjohn, Stanford, & Gordon, 2012). The model created by Gomez-Villanueva and Ramirez-Solis (2013) shows that multiple predictors may be possible due to the dynamic capabilities of a firm. Smaller firms are more dynamic, so these firms could be examined to determine if capabilities emerge from leadership types such as transformational leadership or strategic leadership or if capabilities emerge from certain types of culture. The finding of predictors can then lead to a study of the magnitude of such predictors.

One particular potential predictor of first-mover advantage is the age of the firm. Weinstein and Standifird (2010) showed that extensive experience in the book retail sector was a hindrance to becoming a first-mover. This experience implies firm learning due to having been a retailer for a significant amount of time. Consequently, new and less experienced book retailers

were more likely to be first-movers into e-commerce because management cognition was not constrained by the former ways of operation. While the newspaper firms studied were all older and experienced firms, a future study could include the entrance of the solely online news organizations as late entrants and how they affected the first-mover advantages or disadvantages incurred by the older firms.

Hypothesis 1 found the small MSA variable significant. Research could be done explaining why firms in an area with few people would be more likely to adopt e-commerce than an area with many people. Of course, this variable may be masking another reason such as competition differences between the two types of areas. In either case, additional research could provide significant insight into the newspaper industry, e-commerce theory, and first-movership theory.

Research could be performed for first-mover advantage existence. Studies continue to be performed showing the existence of an advantage in other markets (e.g. Mueller, Titus, Covin, & Slevin, 2009; Weinstein & Standifird, 2010; Goparaju, 2015). Advantages may occur deeper in the organization such as production costs or labor costs. Also, this study showed that low advertising rates were disadvantageous. Future research could search for more disadvantages and their magnitude.

Goparaju (2015) performed a study on e-commerce firms in India to see if first-mover advantage exists with those firms. Similar studies could be conducted in India and other emerging markets on news organizations from those countries to determine if the findings from the U.S. firms are similar. Magnusson et al (2012) found there are several environmental conditions that influence first-movership in emerging markets; thus, results may be possible that might be compared to U.S. firms. One potential issue currently with this direction is that the data is not complete; the news industry in the emerging countries would need to get through the Internet adoption phase as well as a few subsequent years to monitor the effects. Nevertheless, emerging countries provide a good opportunity for researchers to capture data as events happen rather than looking back in a historical perspective.

SUMMARY

This study developed first-mover theory to show a relationship between size of a firm and first-mover advantage as supported by Cui and Lui (2005) and Lowe and Atkins (1994). First-mover theory has also been developed to show the relationship of e-commerce to first-movership as supported by Huang et al. (2003), Makadok (1998), and Nikolaeva (2005). However, the relationship of firm size with first-movership into e-commerce had been ignored until now. This paper fills that void in first-mover theory since Hypothesis 1 shows such a relationship.

This study also extends e-commerce theory. Previously mentioned studies have linked first-movership and e-commerce, but none have linked e-commerce and the newspaper industry. The newspaper industry has special characteristics such as product digitization and electronic distribution. Support for Hypothesis 1 shows e-commerce adoption will be more likely under certain circumstances than others, namely, firm size affects a firm's adoption of e-commerce. Until now, this has been missing from the e-commerce literature. Hypothesis 2 reveals e-commerce's first-mover effects. Few studies conducted measure the e-commerce adoption effects. This study fills that void.

This study contributes to newspaper industry research. Very few studies have been done at all (Carroll, 1984a, 1984b; Carter, 1984; Gilbert, 2001; Gomez-Mejia et al., 2001; Wishart et

al., 1996) despite simplicity of the industry and availability of data. From Hypothesis 1 newspaper industry theory extends to predict firm types of e-commerce first-movership. While this is an after-the-fact explanation, e-commerce could change results when there is another first-mover opportunity. Hypothesis 2 supports existence of a first-mover disadvantage. This study is the first to show support for first-mover advantages in the newspaper industry.

This unique study extends management theory in three different directions. The hypotheses develop first-movership theory showing firm size plays a part determining which firm will be a first-mover. The hypotheses also develop e-commerce theory demonstrating the first-mover disadvantage existence what one disadvantage is. Finally, this study examined the newspaper industry which has a paucity of research.

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BRAND ATTITUDES AND THE PLACEMENT OF SEMANTIC PRIMES IN NOVELS

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ABSTRACT

This study considers whether the priming of content which is semantically related to brand will enhance attitudes towards the target brand. The present study examines the robustness of semantic priming within the context of a novel—an environment in which priming does not occur in isolation, but is instead integrated in the development of the plot’s characters and locations. Two laboratory experiments examined the influence of semantic priming on brand attitudes. Semantic priming fails to influence brand attitudes when priming occurs within the cluttered environment of a novel. The study is the first to examine the robustness of semantic priming within the context of a novel. Practitioners (concerned that recent legislation requiring authors engaging in explicit brand placement to disclose their material connection to a product seller) will be interested in the merits of a semantic-priming strategy that does not require explicit references to a brand

INTRODUCTION

Brand references populate all facets of modern media. The Wheaties brand of cereal fueled the training program of Sylvester Stallone’s character in *Rocky III* (Brennan, et al., 1999), while Smirnoff and BMW were drunk and driven by James Bond in the movie *Tomorrow Never Dies* (Karrh, 1998). There is an explicit reference to Miller beer in Bruce Springsteen’s music video *Born in the USA* (Brennan 2008), and an implicit reference to Doublemint gum in Chris Brown’s song *Forever*—as the soundtrack was based on the Doublemint gum ad jingle (Burkhalter & Thornton, 2014). The Volvo brand is mentioned on no fewer than sixteen occasions in Stephenie Meyer’s (2005) novel *Twilight*. Sony features prominently in Tom Clancy’s *Splinter Cell* video game, where the protagonist Sam Fisher carries a Sony device that is critical to the game’s plot (Anderson, 2005). Although some brand references stem from the desire of the media content providers to add verisimilitude to creative output (Brennan, et al., 1999), others result from commercial considerations—a practice referred to as brand placement (Karrh, 1998).

Brand placement in movies is not a new phenomenon, with placements appearing in Lumiere films as early as 1896 (Newall, Salmon & Chang 2006); however, the practice of placing brands in novels occurred more than a century earlier. *The History of Little Goody Two-Shoes* (1765) was published by John Newbery and was printed and made available for sale at the Bible and Sun Printers and Bookshop in the churchyard of St Paul’s in London — a bookshop that also sold pharmaceutical products. The possibilities presented by the coupling of a bookshop and a pharmacy were not lost on the publisher, as these opening sentences attest:

“Care and Discontent shortened the days of little Margery’s Father. He was forced from his family and seized with a violent fever in a place where Dr. James’s Powder was not to be had, and where he died miserably” (The History of Little Goody Two-Shoes p.1).

At the conclusion of the book, the publisher informs readers that Dr James’s Powders—a treatment for “Fevers, the Small Pox, Measles, and Colds” -- is available at the Bible and Sun bookshop for two-and-a-half shillings.

A number of recent authors have continued the practice of brand placement in novels. Cumberland Packaging Corporation—the manufacturer of Sweet and Low-- invested in 1.3 million dollars in Hillary Carlip’s novel *Eat Me I’m Yours*—a book that not only contains numerous references to Sweet and Low, but also includes a reference to the inability of the FDA to connect the brand to cancer in lab rat studies (Alter, 2014). William Boyd was compensated by Land Rover to feature the Land Rover brand in the novel *The Vanishing Day Game* (Flood 2014). Similarly, Paspaley pearls commissioned Anna Funder to feature Paspaley jewelry in the short story *Everything Precious*, a jewelry brand placement commission that echoes that obtained by Fay Weldon, author of *The Bulgari Connection*, for references to its jewelry products (Nelson, 2004). Proctor and Gamble’s brand Cover Girl and Ford’s Fusion brand have also featured in placement deals with novelists (Petrecca, 2006 & Lehu, 2007).

Previous research on brand references in books has examined the effect of explicit references to the brand on brand attitudes (Olsen & Lanseng, 2012), as well as recall for both the referenced brand (Brennan, 2008, Brennan & McCalman, 2011) and its competitors (Brennan, 2015b). The present study considers whether author references to objects and ideas which are related to a brand may make a brand more accessible in memory and influence brand attitudes, even when an author does not explicitly mention a brand. Support for the idea would mean marketers might be prepared to offer commercial support to an author for ‘brand relevant content’, even when there is no explicit reference to the brand itself. A number of studies indicate that an object (e.g., a brand) is better liked when it becomes easier to process (i.e., acquires greater conceptual fluency) as a result of enhanced accessibility in memory (Berger & Fitzsimmons, 2008; Labroo et al., 2007; Reber, et al., 2004). In the context of a novel, however, any content that is conceptually related to a brand will not appear in isolation, but will be surrounded by a sea of unrelated characters, scenes, and images—clutter that may attenuate conceptual fluency. Accordingly, the present study examines the robustness of conceptual fluency effects on brand attitude within the cluttered environment of a novel.

Semantic Priming

Changes in attitudes and behaviors may be induced through the creation of an environment in which subjects are exposed to semantically related cues—a process known as semantic priming (Lee & Labroo, 2004). The psychology literature contains numerous examples of semantic priming. For example, liking for the word “book” was enhanced when preceded with the related concept “librarian” in comparison with the situation where the word “book” was preceded by the unrelated concept “neighbor” (Whittlesea, 1993). Similarly, attitudes towards a picture of a lock became more favorable when the picture was preceded by the related word “key” in comparison with the unrelated word “snow” (Winkielman & Fazendiro, 2003). With regard to behavior, Bargh et al. (1996) demonstrate that subjects who undertake a scrambled sentence task in which they are exposed to words related to politeness (e.g., respect and polite) or

rudeness (aggressively or rude) were more likely to demonstrate behaviors consistent with these traits than subjects in a control group. For example, those primed with polite words were less likely to interrupt the researcher's conversation. Similarly, Macrae and Johnston (1998) report that subjects primed with the concept of helpfulness demonstrated a greater willingness to pick up objects that the experimenter had "accidentally dropped" in comparison to control subjects.

In a marketing context, a growing body of evidence suggests that attitudes towards products may be enhanced by creating an environment in which subjects are exposed to semantically-related cues. For example, subjects evaluated a bottle of ketchup more favorably after being exposed to a story set in a fast-food restaurant than was the case when the story was located in a supermarket (Lee & Labroo, 2004). Similarly, students exposed to pictures of dogs rated a conceptually-related brand (Puma) more favorably than subjects not primed with such pictures (Berger & Fitzsimons 2008-- as a member of the cat family, the authors contend that Puma is conceptually related to "dog" in memory).

Research also suggests that marketers may be able to forge a relationship between a cue and a desired attitude or behavior. For example, while there is no reason to believe that a frog has a semantic relationship with a bottle of wine, an experiment by Labroo et al. (2007) indicates that if subjects are first primed with a pictures of a frog, a brand of wine with a frog on the label will be preferred to the same brand with a label displaying another object (such as a truck). Similarly, in a field experiment, students who ate at dining halls that utilized trays were exposed to the slogan "Each and every dining hall tray needs five fruits and veggies per day" were observed to increase their consumption of fruits and vegetables in comparison to those exposed to the slogan "Live the healthy way, eat five fruits and veggies per day." In a control group of students, who ate at a facility that did not expose them to trays, the tray slogan did not impact behavior (Berger & Fitzsimons, 2008).

Research also indicates that the semantic priming of content that is negatively valenced may have a negative influence on a semantically-related brand. An experiment by Lee and Labroo (2004) exposed subjects either to an ad for "2-in-1-Not-Nice-to-Lice Shampoo" or to an ad for "Agnesi Pasta", and subsequently measured attitudes towards Nutriance Conditioner. As hypothesized, evaluations of Nutriance Conditioner suffered when it was paired with a semantically-related product with negative connotations (a shampoo designed to treat head-lice) in comparison with the neutral pasta advertisement. Accordingly, in the present study we examine whether semantic primes (employed in isolation in previous studies) have the capacity to influence brand attitudes in the posited direction when those primes are placed in the more cluttered environment of the novel.

H₁: Subjects exposed to positive, semantically-related content in a book chapter will report more favorable attitudes towards the target brand than subjects exposed to unrelated content.

H₂: Subjects exposed to semantically related, but negatively valenced, content in a book chapter will report less favorable attitudes towards the target brand than subjects exposed to unrelated content

EXPERIMENT ONE

In order to examine hypothesis one, forty students from a South-Western University in the USA participated in a laboratory experiment. After being randomly assigned to two versions (prime/no prime) of the experimental stimulus—a chapter of fiction that was purportedly written by a new novelist---students evaluated the Crofters brand of jelly. The chapter featured a light-

hearted discussion between a college president and his wife on the problems facing the university. Subjects in the semantic priming condition were exposed to several references to peanut butter in the chapter. Peanut butter is often paired with jelly in sandwiches in the USA; indeed, the average American consumes 1500 peanut butter and jelly sandwiches before graduating from high school (Prepared Foods, 2002). Accordingly, jelly might be expected to be closely associated with peanut butter in the semantic networks of American college students. Subjects in the no prime condition were exposed to a chapter in which all references to peanut butter were removed.

The cover story involved informing the subjects that they would be evaluating a chapter of fiction written by an aspiring author. Prior to the chapter and author evaluations, subjects completed some product evaluations which included the dependent variable—attitude towards the Crofters brand of jelly (measured by averaging responses to two 7-point items -- unfavorable/favorable and dislike/like) and two products (Nutriance Conditioner and Puma) unrelated to the peanut butter prime (also measured on two 7 point items-- unfavorable/favorable and dislike/like). The evaluations of the unrelated products were designed to ensure that any priming effects resulting from the treatment condition were not an artifact of the treatment producing a general enhancement of product attitudes.

Results

The results failed to support H1. A comparison of reported attitudes towards the Crofters brand of jelly were not significantly different between subjects exposed to the peanut butter prime ($M=4.25$) and those in the no prime condition ($M= 3.93$, $t(38) = .758$, $p > .45$). As expected, the peanut butter prime did not induce any general enhancement of product attitudes. Subjects in the peanut butter prime condition did not produce more favorable attitudes towards Nutriance conditioner ($M = 3.37$) than those in the no prime condition ($M= 3.4$, $t(38) = .064$, $p > .94$). Similarly, subjects in the peanut butter prime condition did not produce more favorable attitudes towards Puma brand ($M=4.02$) than those in the no prime condition ($M= 3.9$, $t(38) = .231$, $p > .81$).

Discussion

The positive effects of semantic priming on attitudes towards related products observed in previous research (Lee & Labroo 2004, Berger & Fitzsimons, 2008) do not appear to extend to the situation in which priming occurs within the more cluttered environment of the novel. The product category chosen in experiment one (jelly) did not, however, feature in the priming studies of Lee and Labroo (2004) and Berger and Fitzsimons (2008). Accordingly, a second experiment was devised--employing the same brands as Berger and Fitzsimons (2008) and Lee and Labroo (2004)—to test the generalizability to a more cluttered environment of semantic relationships that had been positively primed (i.e., a retest of hypothesis one) in the study of Berger and Fitzsimons (2008) and negatively primed (i.e., a test of hypothesis two) in Lee and Labroo (2004).

EXPERIMENT TWO

Thirty-eight undergraduate students from a Southwestern University in the USA participated in a laboratory experiment. After being randomly assigned to modified versions of the experimental stimuli described in experiment one—a chapter of fiction that was purportedly written by a new novelist—students evaluated two brands (a Puma T-Shirt and Nutriance Conditioner). The cover story used in experiment two was identical to that employed in experiment one. Prior to the chapter evaluations subjects completed some product evaluations (which included the dependent variables). The dependent variables—attitudes towards Puma and Nutriance—were captured by averaging responses to two 7-point (unfavorable/favorable and dislike/Like) items. As in experiment one, subjects evaluated a product (the Crofter's brand of Jelly) unrelated to either prime to ensure that any priming effects were not an artifact either treatment producing a general increase in product attitudes.

Subjects in the positively-valenced priming condition were exposed to semantically-related content in the stimulus chapter—paragraphs featuring the protagonist's dog—designed to enhance the conceptual fluency of cats, and as a result enhance attitudes towards the Puma brand. Subjects in the negatively-valenced priming condition were exposed to paragraphs discussing the protagonist's problems with head-lice and the “Not-Nice to Lice Shampoo” solution. This negatively-valenced content was designed to reduce attitudes towards the semantically-related Nutriance brand of conditioner. Thus, subjects in the positively valenced priming group served as control subjects in evaluations of Nutriance, while subjects in the negatively-valenced priming group served as control subjects in evaluations of Puma. In a previous study, dogs had served as effective positively-valenced semantic primes for the Puma brand (Berger & Fitzsimons, 2008), while “Not-Nice-to-Lice Shampoo” served as an effective negatively-valenced semantic prime for the Nutriance brand of conditioner (Lee & Labroo, 2004).

Results

As was the case in experiment one, the results failed to support H1. A comparison of reported attitudes towards the Puma brand were not significantly different between subjects exposed to the dog prime ($M=4.26$) and those exposed to the shampoo prime ($M=4.76$, $t(36) = .94$, $p > .35$). Similarly, H2 was not supported. A comparison of reported attitudes towards the Nutriance brand were not significantly different between subjects exposed to the shampoo prime ($M=3.32$) and those exposed to the dog prime ($M=3.37$, $t(36) = .12$, $p > .9$). As in the case of experiment one, the priming treatments did not induce any general change in attitudes towards a product unrelated to the prime. The evaluation of the Crofters Jelly brand did not differ significantly between the shampoo prime ($M=3.81$) and the dog prime ($M=3.81$, $t(38) = .00$, $p > .99$).

Discussion

Consistent with experiment one, the results of experiment two indicate that the placement of content that is semantically related to a brand fails to influence brand attitudes when that semantically-related content appears with the cluttered environment of a book chapter. This result was unaffected by the valence of the prime.

Apart from differences in clutter, the priming stimuli employed in experiment two of the present study also differed from those employed in Lee and Labroo (2004) and Berger and Fitzsimons (2008) with respect to the deployment of visual imagery. In the Lee and Labroo (2004) study the priming stimulus was an advertisement for Not-Nice-to-Lice shampoo which featured a picture of the shampoo. In the Berger and Fitzsimons (2008) study, the priming stimulus was a series of pictures of dogs. In the present study, the priming stimulus contained only text. It is unlikely, however, that the absence of a visual priming stimulus in experiment two of the present study explains the absence of support for the semantic priming effects which were observed by Lee and Labroo (2004) and Berger and Fitzsimons (2008). The rationale is that both Whittlesea (1993) and Lee and Labroo (2004) report experiments in which a plain text priming stimulus (without any accompanying visual stimulus) induces more pleasant evaluations of a semantically-related target word. For example, in an experiment by Lee and Labroo (2004) subjects exposed to the word “tree” in the sentence “behind the shed there were some low fences surrounding the word tree” report more pleasant evaluations of the semantically-related word “leaf.”

GENERAL DISCUSSION

Semantic priming involves inducing changes in attitudes and behaviors through the creation of an environment in which subjects are exposed to semantically related cues (Lee & Labroo, 2004). Research suggests that such priming increases the accessibility in memory of a conceptually related object, which results in positive affect for the target object (Berger & Fitzsimons, 2008; Labroo, et al., 2007; Reber et al., 2004). The present study examined the robustness of semantic priming in the context of a novel-- an environment in which semantic priming is surrounded by the clutter of the author's plot. The results of two laboratory experiments indicate that neither positively-valenced nor negatively-valenced semantic priming induces significant effects on attitudes towards semantically-related brands when semantic primes are located within the context of a novel.

This study extends research on both brand placement in novels, as well as on semantic priming. Previous research has examined the effects of brands placed in a novel on brand recall (Brennan, 2008; Brennan, 2015b) and brand attitudes (Olsen & Lanseng, 2012). These previous studies on brand placement have examined the effects of an explicit brand placement rather than the effects of primes that are semantically related to a brand which is not explicitly mentioned in the text. Brennan (2008) reported that the clutter (plot and character development) that surrounds explicit brand placements in a novel results in the suppression of the part-list cueing effect—the finding that the ability of subjects to recall competitive brands becomes impaired after subjects focus their attention on a single brand from that product class (Alba & Chattopadhyay, 1985; Alba & Chattopadhyay, 1986). The results of the present study suggest that clutter has a similar attenuating impact on semantic priming—an effect that has been supported in environments in which the semantic primes are isolated (Labroo et al., 2007; Lee & Labroo, 2004).

The present study also contributes to the emerging literature on priming replication and extension. A number of recent papers in priming have failed to replicate results from some of the classic papers in the field. For example, Bargh, Chen & Burrows (1996) reported that that people walk more slowly if they have been unconsciously primed with age-related words; however, Doyen et al (2012) failed to replicate the result. Similarly, Calin & Standing (2013) failed to replicate Ciani & Sheldon's (2010) finding that priming subjects with a letter (A versus

F) resulted in improved cognitive performance. Finally, Dijkterhuis & van Knippenberg (1998) reported that individuals' accuracy in answering general knowledge questions can be influenced by activating intelligence-related concepts, such as professor or soccer hooligan; however, Shanks et al (2013) were unable to replicate the finding in nine separate experiments. Recently, research has explored the generalizability of priming results across subjects that may differ in cognitive ability (Brennan, 2015a) and attention to the prime (Xiao & Yamauchi, 2015). The present study contributes to the generalizability of priming results across environments that differ in the relative clutter surrounding the priming stimulus. Future research should consider the sensitivity to clutter of other priming manipulations that have been demonstrated in isolated priming environments.

The study also has practical implications for authors and brand managers involved in the negotiation of brand placement contracts in the USA. Historically, authors were not required to disclose the fact that they had been compensated for including references to specific brands (Brennan, 2008), and so readers were unable to distinguish between brand placements and those that the author had included merely to add realism to a character or plot. In 2009, however, the Federal Trade Commission report *Guides Concerning the Use of Endorsements and Testimonials in Advertising* issued new guidelines requiring the disclosure of any material connection between the endorser and the seller of a product when such a connection is not reasonably expected by an audience. Brand managers who attempt to evade the disclosure rules by compensating an author for semantic primes which may be semantically-related to their brands are likely to be disappointed by the results of the present study. Before brand managers abandon the strategy of using semantic priming in novels, however, future research should consider whether making the semantic primes the central focus of a chapter will overcome the attenuating effects of clutter that were observed in the present study.

One limitation of the present study is that the priming stimulus in each of the experimental manipulations always appeared towards the end of the chapter—the last 13-19% of the chapter. Future research should examine whether the introduction of the priming stimulus towards the start of a chapter, or distributing the priming stimulus throughout the chapter could induce semantic priming. Future research could also examine the effect of increasing the quantity of semantic primes within the chapter. The number of semantic primes deployed in the experimental manipulations of present study varied from three (shampoo prime) to eleven (dog prime). Although Lee and Labroo (2004) contained only a single shampoo prime (and Berger and Fitzsimons (2008) obtained a significant priming result with as few as five dog primes), it is possible that a larger quantity of primes are required to offset the effects of clutter within the environment of a novel.

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A STRUCTURAL EQUATION MODELLING OF ERP IMPLEMENTATION IN JAMAICA AND USA

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ABSTRACT

This study focuses on several issues surrounding current Enterprise Resources Planning (ERP) implementation status in Jamaica and USA. Two hundred and five Jamaican managers and two hundred twenty-two American managers were surveyed. Our Structural Equation Modelling (SEM) findings supported the possibility that market pressure and organization culture may have impact on the complexity of ERP systems as well as levels of ERP implementation effectiveness. The correlation analysis also reveals significant relations between market pressure and culture on organizational successes, as well as end user computing satisfaction. This study is exploratory in nature since it was only our first attempt to get an initial feel of whether the constructs involved could be related and how they operated in the Jamaican and American environment. More studies are needed to identify the more important constructs. We found no significant difference between Jamaica and USA on all remained variables in our study. Future research may identify more explanatory variables for ERP Success.

INTRODUCTION

ERP AND IMPLEMENTATION – REPORTED EXPERIENCES

The primary objective of having an ERP system is to help the firm integrate the organization as a whole, from the supplier's evaluation to customer invoicing effectively and efficiently. ERP has evolved rapidly from modest beginnings during the 1970's, originating with discussion at IBM of integrating organizational planning and financial systems and the startup of SAP AG during that period to the reported current position of SAP as a global software giant with over 6 billion of global revenue in 2013. In fact, use of ERP system has been extended to non-business uses. For example, Maczk, et al. (2012) reported that ranchers were found using ERP for resource monitoring for improvement of viability and sustainability of family ranches in Wyoming. The rate of changeover to ERP and in turn to ERP II has been so swift that early adopters have been faced with systems which became obsolete almost as soon as they are developed. Also notable has been the recognition that while organizations have made enormous investments in ERP, the systems are gaining "... a reputation for high costs, overruns, and failure to deliver" (Williams, Beatty and 2006; Lotta and Olli-Pekka, 2008; Scarbrough et al., 2008). "Very expensive to purchase, even more costly to customize," "require major change in the company and its processes," and "involves an ongoing process for implementation, which may never be completed" are some disadvantages listed in Heizer and Render (2016).

Somers et al. (2003) have pointed to the need to measure end-user computing success in

evaluating whether ERP implementations are successful. Moreover, these researchers report validation of an earlier End User Computing Satisfaction (EUCS) instrument initially developed by Doll and Torkzadeh (1988) for use in MIS evaluation. They report that in the ERP environment, EUCS includes five factors: content, accuracy, format, ease of use, and timeliness, all consistent with the earlier research. Saraf et al. (2013) as well as Huang and Handfield, (2015), on the other hand, have suggested that the amount of knowledge stock a company maintains within the ERP system will result in a higher level of assimilation of knowledge.

Several authors (Saraf et al., 2013) suggest that a major factor distinguishing less successful ERP adoptions from more successful ones may include lack of milestones throughout the process, lack of attention by top management, and poorly designed cross-functional implementation teams. They have also found that successful organizations, as defined as meeting budget and/or time targets, are characterized by extensive preparation *prior to* the implementation and by higher levels of authority, accountability, and communication during the implementation (i.e., empowerment during the process). In addition, their research also pointed to a third factor, the issue of customization. From their perspective, the key is in the up-front analysis, moving to best practice – and presumably higher-quality – business systems before ERP adoption, and thus avoiding the need to customize. It can be argued that, therefore, high quality, effective systems need to be in place before ERP adoption (see also Beatty & Williams, 2006). Hald and Mouritsen (2014) discuss the enabling and constraining effects of ERP systems in their research while Ivert and Jonsson (2014) introduce a similar system called Advanced Planning and Scheduling (APS) to improve operational effectiveness. Fok et al. (2004) indicate the need for organizations to implement ERP in a comprehensive manner, where a full array of features, subsystems, and components are implemented, rather than attempting to implement limited features. Studies have examined the sequencing of TQM implementation and ERP implementation and findings generally suggest that an effective TQM implementation prior to ERP implementation increases likelihood of success (Li et al., 2008; Schniederjans and Kim, 2003).

Recent research has suggested that the extensiveness of ERP systems, in the sense that the systems are used throughout the organization and are tightly integrated may be important in ERP success (Grabski et al., 2011; Tsai, et al., 2012; Xu, 2011). This is further supported by Sssidharan et al. (2012) through their study using social network structure on enterprise systems.

Schniederjans and Kim (2003) have noted that the use of business reengineering, establishing a total quality management culture have all shown to be important factors to successful implementation of ERP. Al-Mashari and Al-Mudimigh (2003) show that “SAP R/3 has been widely implemented to create value-oriented business processes that enable high level of integration, improve communication within internal and external business networks ...” Jones and Price (2004) proposed that knowledge sharing in ERP implementation requires the end-users to understand how their tasks fit into the overall process, and understand how their process fits with other organizational processes. Additionally, Pflughoeft, al el. (2003) have pointed to the importance of what they refer to as the organizational context in determining web use and benefits, and report validation of an instrument to measure two key context variables: Market Pressure and Scope of Operations. Clegg and Wan (2013), in their research, provide some guidelines for practitioners to deliver better strategical and operational competitive advantage through effective implementation of ERP systems.

Russell and Taylor (2013) have pointed out that ERP vendors and their customers have learned from earlier debacles. Facing the huge pressure from the market, ERP vendors have made swift progress. A later version of ERP (ERP II) offerings sport stand-alone modules and open

architecture. With the newer ERP, companies can install only the modules they want, and can choose a collection of modules from different vendors (the best –of breed approach), which may provide a better match with organizational needs. Beheshti and Beheshti (2010) pointed out that management commitment is required for employees to fully understand ERP implementation which in turn becomes instrumental in the determination of ERP success. Gottschalk (2007) recommended that team culture within organization is also important for ERP's smooth implementation.

ORGANIZATIONAL CULTURE, QUALITY MANAGEMENT (QM), MARKET PRESSURE, AND ERP RELATIONSHIPS

Earlier research has suggested that Organizational Culture and QM Maturity has impacts upon a number of the subsystems comprising an organization. The quality movement has consistently, from Deming (1986) to current advocates, focused upon the customer and giving superb customer service and attention to related groups within the organization as internal customers (Hammer, 2001; Hart, 1995; Prahalad and Hamel, 1990; Powell et al., 2013; Rigby et al., 2002). In line with these ideas and earlier findings (Fok et al., 2001; Fok et al., 2002), use of high quality IS in concert with mature QM programs should lead those in organizations to report that the organization's culture (as opposed to *national* culture) is supportive of the quality movement, for example, the environment is empowering and participative. Finally, increased emphasis upon quality throughout the organization and its systems should lead to perceptions that the organization is performing in qualitatively better ways. When changes are made, of interest to this research, as organizations face more market pressures, become more QM mature, and develop positive Organizational Culture, we expect consistent changes in ERP experiences and ERP outcomes. Figure 1 shows our conceptual model.

In addition, the literature on adoption of information technology (Gatignon and Robertson, 1989; Premkumar and Ramamurthy, 1995) state that Market Pressure as important environmental conditions that influence the adoption of new technologies. Competitors' adoption and use of a new technology, such as ERP, encourages other firms to adopt similar technology in order not to lose their competitive positions. Furthermore, the theory of network externalities suggests that a bandwagon effect is created when there are more users of the new technologies which in turn encourage even more to use the new technologies. Hence, as the number of competitors that use ERP grows, pressure mounts on the firm to get on the bandwagon to stay competitive.

RESEARCH FOCUS

In our study, we believe that Organizational Context, such as the Market Pressures that organizations face when implementing ERP, their QM Maturity, and the Organizational Culture will affect the complexity of the ERP systems and the implementation experience among firms in Jamaica and USA. Additionally, the ERP systems complexity will be related to the outcomes of ERP in terms of End User Computing Success and Organizational Success. Finally, the ERP implementation experience will have impact on End User Computing Success and Organizational Success.

Research Question 1: Organizational Context, such as Market Pressure, QM Maturity, and Organizational Culture, will affect perceptions End User Computing Satisfaction.

Research Question 2: Organizational Context, such as Market Pressure, QM Maturity, and Organizational Culture, will affect perceptions of Organizational Success.

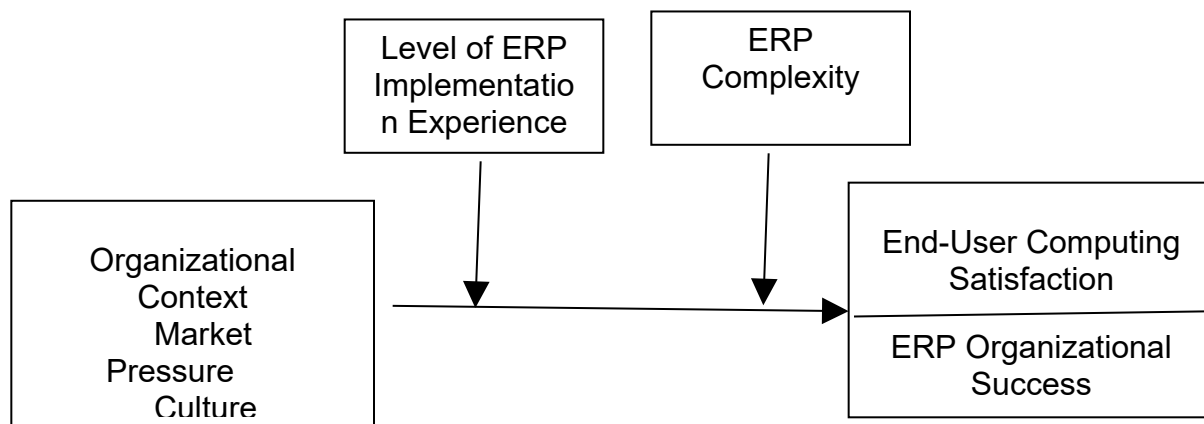
Research Question 3: ERP Implementation Experience will moderate the relationship between Organizational Context (Market Pressure, QM Maturity, and Organizational Culture) and End User Computing Satisfaction.

Research Question 4: ERP Complexity will moderate the relationship between Organizational Context (Market Pressure, QM Maturity, and Organizational Culture) and End User Computing Satisfaction.

Research Question 5: ERP Implementation Experience will moderate the relationship between Organizational Context (Market Pressure, QM Maturity, and Organizational Culture) and Organizational Success

Research Question 6: ERP Complexity will moderate the relationship between Organizational Context (Market Pressure, QM Maturity, and Organizational Culture) and Organizational Success.

Figure 1. Research Model



METHOD

Our sample included 205 managers from Jamaica and 222 from USA. On average, Jamaican manager (age mean=35) were younger than American managers (age mean=41), who had roughly 19 years' work experience and 11 years managerial experience. About 60% of

surveyed companies had more than 500 employees. This study involved a wide variety of companies from different industries. Manufacturing and financial services industries took 35% of the whole sample. Appendix 1 shows our ERP survey.

RESEARCH VARIABLES

Organizational Context - Market Pressure

The literature on adoption of information technology, especially those focusing on improving connectivity among companies, have shown that Market Pressure is an important environmental factor that influences the adoption of inter-organizational systems (Pflughoeft et al., 2003). To measure Market Pressure leading to the use of ERP from key external stakeholders, three questions are adopted from Pflughoeft et al. (2003). The 3-question measure covers the extent of pressure from competitors, customers, and suppliers on the firm to use ERP. The questions use a 6-point Likert scale – from 0 for “none” to 5 for “very great”. Pflughoeft et al. (2003) reported a reliability index (Cronbach’s Alpha) of 0.73. In this study the reliability index was 0.744. Exploratory factor analysis produced a single factor solution.

Organizational Context – Organizational Culture

Based on previous research (Fok et al., 2000; Fok, et al., 2001), we measured the Organizational Culture construct with a series of paired opposite items which asked whether the organization’s climate should be described as open vs. closed; soft vs. tough; and the like. Exploratory factor analysis showed two factors of our measurements. However, we only kept factor 1, because factor 2 was not reliable. Factor 1 included: open vs. closed; team oriented vs. individualistic; participative vs. directive; quality oriented vs. quality lacking; innovation promoting vs. innovation lacking; proactive vs. reactive. The reliability of culture was 0.867.

Organizational Context - QM Maturity

In this study, QM Maturity refers, in a qualitative sense, to the degree of QM implementation in an organization. We suggest, and previous research has shown (Ahire et al, 1996; Flynn et al, 1994; Fok et al., 2000; Fok et al., 2001; Patti et al, 2001; Saraph et al, 1989) that it can be measured by examining the perceived use of QM programs. These ideas assume that if an organization has more completely followed the QM philosophy, QM programs should be used throughout the organization and in various functional areas, rather than in isolation. Moreover, if “quality is indeed everyone’s job,” where QM is more fully in place, employees should be aware of the various QM tools and techniques which are in use. If an organization, on the other hand, has very little or no experience with QM, the opposite is expected. In earlier research (Fok, et al., 2000; Fok et al., 2001) we began the process of developing a measure of QM Maturity. The current instrument we developed dealt with perceived program *use* and asked respondents whether seven programs are in use in the organization, with a range from “none” to “very high.” In this study, consistent with earlier research, the QM Maturity instrument was used to gauge QM Maturity. We conducted a factor analysis to identify the underlying dimensionality. The result indicated a single

factor without “Six Sigma (Green Belt) Training” or “Black Belt Training.” The reliability of this five-item factor is 0.807.

ERP Complexity

Based on the previous research (Thong, 1999), ERP complexity is represented by the extent of ERP system implemented. This is measured by the number of ERP modules implemented and the number of ERP vendors involved in the ERP implementation process.

ERP Implementation Experience

The literature has emphasized the importance of user training and computing experience on system success (Ang and Soh, 1997; Sethi and King, 1998). In this study, we ask the respondents how many weeks of training they received internally and externally and how many years of ERP experience do they have.

End-User Computing Satisfaction (EUCS)

In this study, ERP success is measured by the instrument developed by Doll and Torkzadeh (1989). This 12-item survey instrument is a synthesis of the Ives and Olson (1984) measure of user information satisfaction (UIS). The UIS instrument is a widely used, validated, and generalizable measure of IS success in computing environment (Doll and Xia, 1997; Gelderman, 1998). The Somers et al. (2003) study examined the structure, as well as reliability and validity, of the EUCS instrument posited by Doll and Torkzadeh (1989) in the ERP environment. The findings confirmed that the EUCS instrument maintained its psychometric stability when applied to the users of ERP systems.

EUCS requires subjective self-reports of end-user satisfaction in five areas: content, accuracy, format, timeliness, ease of use of a computer application. The first four areas measure system usefulness while ease of use evaluates the user friendliness of the system. Factor Analysis has a 2-factor solution explaining 64% of the variance. However, only one factor passed reliability test and contributed to a good model fit. The remained factor contains items measuring content, accuracy, format, and timeliness of ERP systems. This factor had a reliability index (Cronbach's Alpha) of 0.89.

ERP Organizational Success

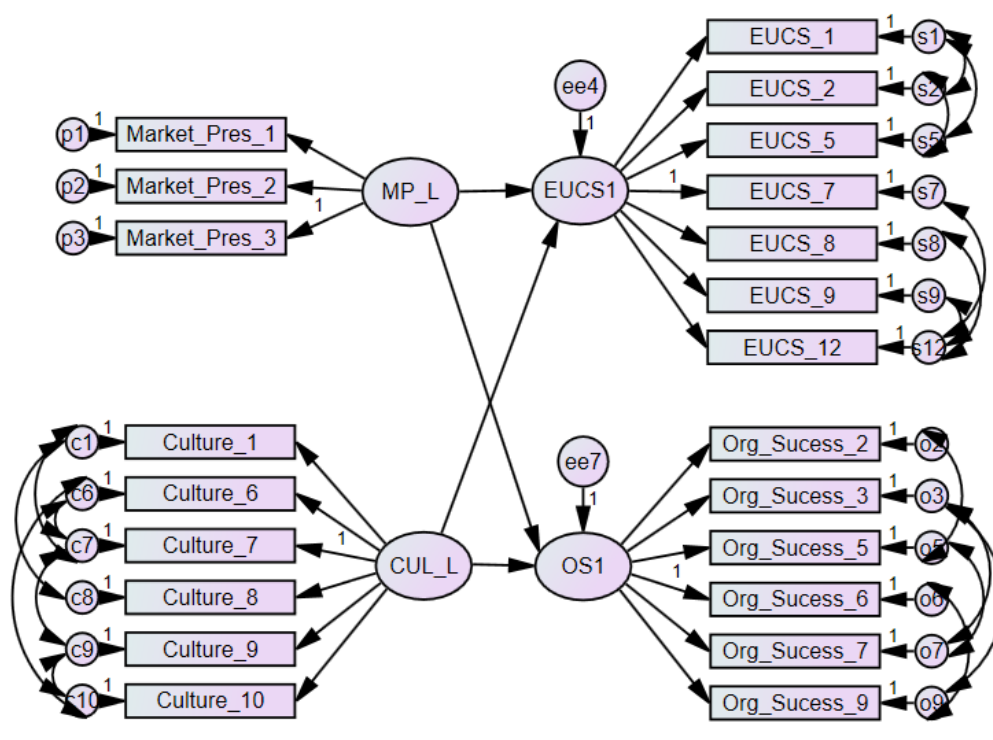
ERP organizational success was measured by how effective ERP has been in accomplishing: lowering cost, improving customer service, competitive positions, etc. Exploratory factor analysis indicated that two factors. After confirmatory factor analysis, only one factor left for organizational success. In our study, organizational success is measured by the degree of ERP

on improving customer service, competitive position, communication with suppliers and customer and increasing sales, planning and controlling. This factor had reliability index of 0.848.

RESULTS

Our research questions examined the ERP implementation experiences of the companies in Jamaica and USA, and the impacts of such experiences on ERP systems success. The tests of models were conducted using Structural Equation Modelling. We failed to find QM Maturity is a good predictor of EUCS and Organizational Success. Figure 2 provides the full structural model with Market Pressure and Culture as predictors. We found a good fit between the data and the model ($GFI = 0.918$, $\chi^2/df = 2.337$, $RMSEA = 0.056$) for all the data. When we ran multiple group analyses, we found that the model fits the data well for all four samples ($GFI = 0.880$, $\chi^2/df = 1.832$, $RMSEA = 0.044$), although the parameter estimates for paths vary in the different country samples, as one would expect. Appendix 2 shows the parameter estimates for overall sample and for each individual country. Table 1 shows the correlation results of remained variables. Our survey applied different scales for different variables. Thus, it is not very useful to report the mean and standard deviation here. There was no significant difference between Jamaica and USA on any variables in Table 1.

Research Questions 1 and 2 held that organizational context, such as the amount of market pressure faced by organizations, the QM Maturity, and the organizational culture, would be related to End User Computing Satisfaction and Organizational Success. However, QM Maturity was excluded from this study because of the confirmatory factor analysis result. In Table 1, we found that Culture was significantly correlated to End User Computing Satisfaction ($r = 0.248^{***}$) and Organizational Success ($r = 0.250^{***}$). Market Pressure was significantly correlated with Organizational Success ($r = 0.426^{***}$) but not End User Computing Satisfaction. Therefore, Research Question 2 was fully supported. Research Question 1 was partially supported.

Figure 2. Structural Equation Model**Table 1
Correlation Table**

Variable List	α	n	1	2	3	4	5	6	7
1 Complex_Vendor_NUMB	--	1	--						
2 Complex_Module_NUMB	--	1	.116*	--					
3 Implement_Exp_Yr	--	1	.139**	.194***	--				
4 Implement_Exp_TWk	--	1	-.013	.036	.046	--			
5 Market_Pres	.744	3	.056	.147**	.048	.127**	--		
6 CUL	.867	6	-.052	.041	.029	.074	.051	--	
7 EUCS	.890	7	-.003	.052	.073	.083	.090	.248***	--
8 Org_Sucess	.848	6	.102*	.172***	.027	.138**	.426***	.250***	.422***

Notes. $N = 427$; * $p < .05$ ** $p < .01$, *** $p < .001$.

For Research Question 3-6, Appendix 3 shows all the potential moderation tests of this study. We only found the significant moderation role of Vendor Number (See Figure 3). Table 2 shows the conditional effect of Culture to Organizational Success. A high level vendor number will negatively moderate the Culture – Organizational Success relationship. We found partially moderation effect of Vendor Number in USA sample. Thus, Research Question 6 was partially supported in USA data.

Figure 3. Moderation Effect of Vendor Number on Relationship CUL-Org Success USA Sample (N=222)

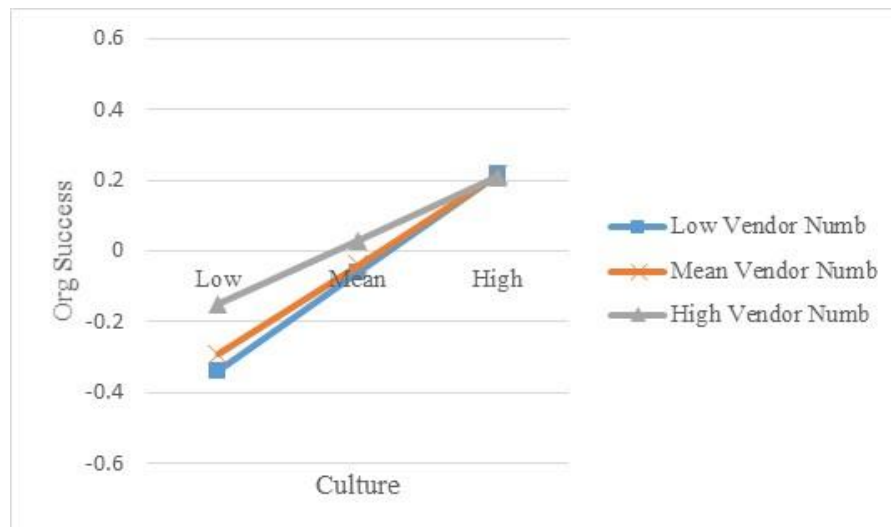


Table 2
Conditional effect of Culture on Org Success
at values of the moderators

Moderator Level	Std β
Overall	.298***
Low	.340***
Mean	.310***
High	.221**

Notes. * $p < .05$, ** $p < .01$, *** $p < .001$.

DISCUSSION AND CONCLUSIONS

In this paper, we have reported the results of exploratory and confirmatory research into a series of proposed relationships between organizational context and the implementation of an important system for enhancing organizational competitiveness: Enterprise Resource Planning (ERP) system. We first considered what kind of impact that the factors that we describe as *organizational context*, have on the complexity of ERP systems as well as reported levels of ERP implementation effectiveness. The context variables that we considered, in this study are: market

pressure, organizational culture, and QM Maturity. Finally, we considered whether these variables would influence our outcome measures: End User Computing Satisfaction and ERP Organizational Success.

The results from this study offer supports for some of the relationships we have suggested. It is suggested that there are significant relationships between Organizational Contexts and End User Computing Satisfaction and Organizational Success. The correlation analysis also shows the significant relationships between Market Pressure and ERP Complexity Module Number, Market Pressure and ERP Implementation Training Week. Our results showed no evidence of the relationships between Culture and ERP Complexity and ERP Implementation. From our perspective, what is notable is that for American sample, a level Vendor Number would negatively moderate the relationship between Culture and Organizational Success. This result may imply the potential ways to improve companies' ERP effectiveness. With sufficient vendors, an organization needs to keep its culture: open, team oriented, participative, quality oriented, innovation promoting, and proactive.

In considering our findings, we recognize that this research is, in fact, exploratory, although confirmatory analysis was applied. It is important to emphasize the exploratory nature of this paper in light of some of the correlations, although statistically significant, are not exceptionally strong. In effect, we asked a sample of managers for their perceptions and beliefs about the constructs, asking, for example, how extensively the managers believed that the programs were used, how well the organization was performing, and what the culture was like. We understand that reliance on respondent perceptions in any setting can potentially introduce single source measurement bias. As a next step, it will be important to attempt to confirm our findings with more independent and observable measures. Thus, this study should be regarded simply as exploratory work which suggests that it may be worthwhile to examine our proposed relationships in a more sophisticated manner.

Our findings are potential victims of all the threats to the validity that apply to cross sectional survey research collecting self-reported data, and in particular common method variance which may be due to some respondents providing what they believed to be socially desirable answers (Podsakoff et al., 2003). Further studies may include some objective index like sales, unqualified products rates, customer satisfaction, etc.

For all remained variables, we found no statistically significant difference between Jamaica and USA. For future research, it will be interesting to keep track the ERP development for these two countries and includes some objective performance to evaluate ERP effectiveness. More explanatory variables may need to be included as independent variables to our study to identify the key predictors of ERP Success.

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Appendix 1 ERP (Enterprise Resource Planning) Implementation Survey

If your organization has adopted module(s) of Enterprise Resource Planning (ERP) system within the last five years, please continue with this survey.

1. Who is your ERP vendor? (Check all)

<input type="checkbox"/> PeopleSoft	<input type="checkbox"/> Baan
<input type="checkbox"/> SAP	<input type="checkbox"/> MAPICS
<input type="checkbox"/> J. D. Edwards	<input type="checkbox"/> JBA International
<input type="checkbox"/> Oracle	<input type="checkbox"/> Other
2. How long ago did your organization first begin to implement ERP? ____ years
3. On average, how many weeks of ERP training do users receive? ____ weeks
4. Check all of the ERP modules/functions adopted by your organization:

<input type="checkbox"/> Financial/Accounting	<input type="checkbox"/> Internal Operations/Production
<input type="checkbox"/> Receiving	<input type="checkbox"/> Customer Order Management
<input type="checkbox"/> Human Resources Management	<input type="checkbox"/> Purchasing
<input type="checkbox"/> Inventory	<input type="checkbox"/> Shipping/Distribution
<input type="checkbox"/> Business to Business Commerce	<input type="checkbox"/> Plant Maintenance
<input type="checkbox"/> Quality Management	<input type="checkbox"/> Other (list) _____
5. Scope of your organization's ERP:

<input type="checkbox"/> Local	<input type="checkbox"/> Regional	<input type="checkbox"/> National	<input type="checkbox"/> Global
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6. The extent of pressure faced by the company to use ERP from the following sources:

	None	Very Little				Very Great
a) Competitors' use	0	1	2	3	4	5
b) Customers' expectation	0	1	2	3	4	5
c) Suppliers' expectation	0	1	2	3	4	5
7. Based on your experience, comment on the user satisfaction with your ERP system:

	Almost Never				Almost Always
a) Does ERP provide precise information the users need?	1	2	3	4	5
b) Does ERP provide sufficient information?	1	2	3	4	5
c) Is the information clear?	1	2	3	4	5
d) Does ERP provide reports that seem to be just about exactly what the users need?	1	2	3	4	5
e) Do the users get the information they need in time?	1	2	3	4	5
f) Is the output presented in a useful format?	1	2	3	4	5
g) Does ERP provide up-to-date information?	1	2	3	4	5
h) Does the information content meet the users' needs?	1	2	3	4	5
i) Are the users satisfied with the accuracy of the ERP system?	1	2	3	4	5
j) Is the ERP system user friendly?	1	2	3	4	5
k) Is the ERP system easy to use?	1	2	3	4	5
l) Is the ERP system accurate?	1	2	3	4	5
8. Comment on how effective ERP has been in accomplishing the following:

	Low Effectiveness			High Effectiveness		
a) Lowering costs	1	2	3	4	5	
b) Improving customer service	1	2	3	4	5	
c) Improving competitive position	1	2	3	4	5	
d) Increasing internal communication	1	2	3	4	5	
e) Increasing communication with suppliers	1	2	3	4	5	

- | | | | | | |
|--|---|---|---|---|---|
| f) Increasing communication with customers | 1 | 2 | 3 | 4 | 5 |
| g) Increasing sales | 1 | 2 | 3 | 4 | 5 |
| h) Increasing planning and controlling | 1 | 2 | 3 | 4 | 5 |
| i) Supporting customer relationship management | 1 | 2 | 3 | 4 | 5 |
| j) Improving the quality of products/services | 1 | 2 | 3 | 4 | 5 |
| k) Improving productivity | 1 | 2 | 3 | 4 | 5 |
| l) Integrating multiple sites and business units | 1 | 2 | 3 | 4 | 5 |
| m) Improving business processes | 1 | 2 | 3 | 4 | 5 |
| n) Integrating information | 1 | 2 | 3 | 4 | 5 |
9. Tell us about the **current** climate in your organization. I feel that the climate in my organization is: (Circle the number on each scale)
- | | | |
|-------------------------|---------------------------------------|--------------------|
| a) Open | 3-----2-----1-----0-----1-----2-----3 | Closed |
| b) Tough | 3-----2-----1-----0-----1-----2-----3 | Soft |
| c) Competitive | 3-----2-----1-----0-----1-----2-----3 | Collaborative |
| d) Formal | 3-----2-----1-----0-----1-----2-----3 | Informal |
| e) Confrontational | 3-----2-----1-----0-----1-----2-----3 | Cooperative |
| f) Team oriented | 3-----2-----1-----0-----1-----2-----3 | Individualistic |
| g) Participative | 3-----2-----1-----0-----1-----2-----3 | Directive |
| h) Quality oriented | 3-----2-----1-----0-----1-----2-----3 | Quality lacking |
| i) Innovation promoting | 3-----2-----1-----0-----1-----2-----3 | Innovation lacking |
| j) Proactive | 3-----2-----1-----0-----1-----2-----3 | Reactive |
10. Give us your general reaction to your organization:
- | | | | | | |
|--|----------------|---|---|---|-------------------|
| | Strongly Agree | | | | Strongly Disagree |
| a) My company is performing well. | 1 | 2 | 3 | 4 | 5 |
| b) The morale in my company is high | 1 | 2 | 3 | 4 | 5 |
| c) My company is productive. | 1 | 2 | 3 | 4 | 5 |
| d) My overall job satisfaction is high. | 1 | 2 | 3 | 4 | 5 |
| e) My co-workers are happy. | 1 | 2 | 3 | 4 | 5 |
| f) My company has good relationships with our customers. | 1 | 2 | 3 | 4 | 5 |
| g) The customers are satisfied with our products/services. | 1 | 2 | 3 | 4 | 5 |
| h) My company uses an appropriate level of technology. | 1 | 2 | 3 | 4 | 5 |
| i) I am satisfied with the use of technology in my company. | 1 | 2 | 3 | 4 | 5 |
| j) I have confidence in the technology being used in my company. | 1 | 2 | 3 | 4 | 5 |
| k) Technology is successful in improving service quality. | 1 | 2 | 3 | 4 | 5 |
11. Indicate the levels of use of the following quality programs in your organization:
- | | | | | | | |
|---------------------------------------|-----------|-----|---|---|---|-----------|
| | Very None | Low | | | | Very High |
| a) Quality Circles | 0 | 1 | 2 | 3 | 4 | 5 |
| b) Statistical process control | 0 | 1 | 2 | 3 | 4 | 5 |
| c) Employee suggestions channels | 0 | 1 | 2 | 3 | 4 | 5 |
| d) Employee quality training programs | 0 | 1 | 2 | 3 | 4 | 5 |
| e) Acceptance sampling | 0 | 1 | 2 | 3 | 4 | 5 |
| f) Six Sigma (Green Belt) Training | 0 | 1 | 2 | 3 | 4 | 5 |
| g) Black Belt Training | 0 | 1 | 2 | 3 | 4 | 5 |

GENERAL BACKGROUND INFORMATION

1. Gender: ☐ Male ☐ Female
2. Your Age: years
3. Number of years of working experience: years
4. Number of years of managerial experience: years
5. Industry of your organization:

<input type="checkbox"/> Manufacturing	<input type="checkbox"/> Financial Services	<input type="checkbox"/> Retail
<input type="checkbox"/> Utilities	<input type="checkbox"/> High Technology	<input type="checkbox"/> Education
<input type="checkbox"/> Health Care	<input type="checkbox"/> Government	<input type="checkbox"/> Other
6. The company's markets are: (Check all)

<input type="checkbox"/> Regional	<input type="checkbox"/> National	<input type="checkbox"/> International
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7. What is the approximate number of employees in your organization?

<input type="checkbox"/> Over 500	<input type="checkbox"/> 251 – 500
<input type="checkbox"/> 51 – 250	<input type="checkbox"/> Less than 50
8. What is the approximate annual revenue (in US\$) of your organization?

<input type="checkbox"/> Over \$1,000 Million	<input type="checkbox"/> \$501 to \$1,000 Million
<input type="checkbox"/> \$251 to \$500 Million	<input type="checkbox"/> \$101 to \$250 Million
<input type="checkbox"/> \$51 to \$100 Million	<input type="checkbox"/> \$25 to \$50 Million
<input type="checkbox"/> Less than \$25 Million	<input type="checkbox"/> Unknown

Name of company (will be kept confidential): _____

Brief description of products/services: _____

Appendix 2 Parameter Estimates

Overall			Unstd. β	Std. β	S.E.	C.R.	P
EUCS1	<---	CUL_L	0.33	0.317	0.062	5.313	***
OS1	<---	CUL_L	0.306	0.285	0.059	5.218	***
OS1	<---	MP_L	0.487	0.541	0.059	8.188	***
EUCS1	<---	MP_L	0.136	0.156	0.05	2.713	0.007
Market_Pres_3	<---	MP_L	1	0.783			
Market_Pres_2	<---	MP_L	0.927	0.725	0.08	11.574	***
Market_Pres_1	<---	MP_L	0.76	0.595	0.074	10.329	***
Culture_7	<---	CUL_L	1	0.655			
Culture_6	<---	CUL_L	1.046	0.684	0.079	13.307	***
Culture_1	<---	CUL_L	1.059	0.693	0.087	12.186	***
Culture_8	<---	CUL_L	1.196	0.782	0.099	12.022	***
Culture_9	<---	CUL_L	1.142	0.747	0.095	11.992	***
Culture_10	<---	CUL_L	1.097	0.718	0.095	11.499	***
EUCS_7	<---	EUCS1	1	0.683			
EUCS_8	<---	EUCS1	1.068	0.73	0.082	13.065	***
EUCS_9	<---	EUCS1	1.1	0.752	0.082	13.388	***
EUCS_5	<---	EUCS1	1.095	0.748	0.085	12.873	***
EUCS_2	<---	EUCS1	1.05	0.717	0.085	12.395	***
EUCS_1	<---	EUCS1	1.034	0.707	0.085	12.23	***
EUCS_12	<---	EUCS1	1.005	0.687	0.075	13.36	***
Org_Sucess_6	<---	OS1	1	0.706			
Org_Sucess_7	<---	OS1	0.986	0.695	0.084	11.711	***
Org_Sucess_9	<---	OS1	0.989	0.698	0.073	13.587	***
Org_Sucess_5	<---	OS1	0.897	0.633	0.082	10.997	***
Org_Sucess_3	<---	OS1	1.058	0.746	0.084	12.624	***
Org_Sucess_2	<---	OS1	0.915	0.646	0.08	11.448	***

Notes. $N = 427$; * $p < .05$ ** $p < .01$, *** $p < .001$.

Jamaica			Unstd. β	Std. β	S.E.	C.R.	P
EUCS1	<---	CUL_L	0.283	0.308	0.08	3.564	***
OS1	<---	CUL_L	0.113	0.109	0.075	1.514	0.13
OS1	<---	MP_L	0.499	0.603	0.08	6.204	***
EUCS1	<---	MP_L	0.052	0.071	0.06	0.869	0.385
Market_Pres_3	<---	MP_L	1	0.837			
Market_Pres_2	<---	MP_L	0.933	0.768	0.102	9.174	***
Market_Pres_1	<---	MP_L	0.671	0.545	0.094	7.106	***
Culture_7	<---	CUL_L	1	0.688			
Culture_6	<---	CUL_L	0.959	0.651	0.1	9.568	***
Culture_1	<---	CUL_L	1.219	0.831	0.132	9.235	***
Culture_8	<---	CUL_L	1.009	0.743	0.127	7.955	***
Culture_9	<---	CUL_L	0.948	0.669	0.114	8.305	***
Culture_10	<---	CUL_L	1.009	0.694	0.123	8.176	***
EUCS_7	<---	EUCS1	1	0.656			
EUCS_8	<---	EUCS1	1.11	0.731	0.135	8.221	***
EUCS_9	<---	EUCS1	1.03	0.707	0.128	8.041	***
EUCS_5	<---	EUCS1	1.04	0.677	0.136	7.644	***
EUCS_2	<---	EUCS1	0.82	0.589	0.12	6.815	***
EUCS_1	<---	EUCS1	0.868	0.602	0.125	6.941	***
EUCS_12	<---	EUCS1	1.033	0.668	0.133	7.765	***
Org_Sucess_6	<---	OS1	1	0.69			
Org_Sucess_7	<---	OS1	0.945	0.681	0.123	7.652	***
Org_Sucess_9	<---	OS1	0.884	0.609	0.108	8.171	***
Org_Sucess_5	<---	OS1	1.011	0.694	0.13	7.753	***
Org_Sucess_3	<---	OS1	1.006	0.681	0.127	7.924	***
Org_Sucess_2	<---	OS1	0.875	0.632	0.119	7.372	***

Notes. $N = 205$; * $p < .05$ ** $p < .01$, *** $p < .001$.

USA			Unstd. β	Std. β	S.E.	C.R.	P
EUCS1	<---	CUL_L	0.389	0.334	0.095	4.097	***
OS1	<---	CUL_L	0.408	0.36	0.088	4.625	***
OS1	<---	MP_L	0.489	0.494	0.087	5.612	***
EUCS1	<---	MP_L	0.219	0.215	0.081	2.689	0.007
Market_Pres_3	<---	MP_L	1	0.744			
Market_Pres_2	<---	MP_L	0.897	0.671	0.116	7.74	***
Market_Pres_1	<---	MP_L	0.889	0.679	0.114	7.786	***
Culture_7	<---	CUL_L	1	0.627			
Culture_6	<---	CUL_L	1.123	0.708	0.119	9.427	***
Culture_1	<---	CUL_L	0.969	0.611	0.12	8.054	***
Culture_8	<---	CUL_L	1.367	0.82	0.156	8.782	***
Culture_9	<---	CUL_L	1.274	0.783	0.15	8.47	***
Culture_10	<---	CUL_L	1.157	0.726	0.142	8.166	***
EUCS_7	<---	EUCS1	1	0.711			
EUCS_8	<---	EUCS1	1.021	0.73	0.101	10.122	***
EUCS_9	<---	EUCS1	1.101	0.764	0.104	10.571	***
EUCS_5	<---	EUCS1	1.126	0.804	0.107	10.554	***
EUCS_2	<---	EUCS1	1.157	0.783	0.113	10.275	***
EUCS_1	<---	EUCS1	1.103	0.759	0.111	9.971	***
EUCS_12	<---	EUCS1	0.981	0.707	0.089	11.035	***
Org_Sucess_6	<---	OS1	1	0.732			
Org_Sucess_7	<---	OS1	0.999	0.706	0.109	9.126	***
Org_Sucess_9	<---	OS1	1.062	0.778	0.094	11.243	***
Org_Sucess_5	<---	OS1	0.78	0.586	0.098	7.939	***
Org_Sucess_3	<---	OS1	1.091	0.812	0.106	10.327	***
Org_Sucess_2	<---	OS1	0.935	0.659	0.104	9.025	***

Notes. $N = 222$; * $p < .05$ ** $p < .01$, *** $p < .001$.

Appendix 3 Moderation Test

Independent Variable: Market Pressure

Dependent Variable: Organizational Success

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
Market_Pres	.471***	.471***	.381***	.366***
Vendor_NUMB	.111	.111	.054	.082
MP_Vendor		-.002		-.050
R ²	.235***	.235***	.152***	.153***
ΔR^2		.000		.002

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
Market_Pres	.439***	.449***	.379***	.389***
Module_NUMB	.191**	.190**	.056	.056
MP_Modul		-.068		.084
R ²	.258***	.263***	.152***	.159***
ΔR^2		.004		.007

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
Market_Pres	.474***	.467***	.383***	.379***
ERP_Exp_Implement_Yr	-.040	-.043	.048	.045
MP_Imp_Yr		-.068		-.083
R ²	.224***	.229***	.151***	.158***
ΔR^2		.005		.007

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
Market_Pres	.467***	.467***	.367***	.370***
ERP_Exp_Implement_TWk	.058	.056	.109	.105
MP_Imp_Yr		.008		.053
R ²	.226***	.226***	.161***	.163***
ΔR^2		.000		.003

* Model 1: Independent variables and dependent variable. Model 2: Independent variables, moderator and dependent variable.

Independent Variable: Culture

Dependent Variable: End User Computation Satisfaction

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2

CUL	.264***	.256***	.238***	.246***
Vendor_NUMB	-.025	-.019	.026	.014
CUL_Vendor		.101		-.064
R ²	.071***	.081***	.057**	.061**
ΔR^2		.010		.004

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
CUL	.264***	.268***	.235***	.235***
Module_NUMB	.042	.032	.041	.040
CUL_Modul		.058		.044
R ²	.072***	.075**	.058**	.060**
ΔR^2		.003		.002

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
CUL	.265***	.263***	.232***	.237***
ERP_Exp_Implement_Yr	.098	.096	.035	.033
CUL_Imp_Yr		-.028		.029
R ²	.075***	.077**	.061**	.064**
ΔR^2		.002		.003

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
CUL	.265***	.263***	.232***	.237***
ERP_Exp_Implement_TWk	.098	.096	.035	.033
CUL_Imp_Yr		-.028		.029
R ²	.080***	.081***	.057**	.058**
ΔR^2		.001		.001

* Model 1: Independent variables and dependent variable. Model 2: Independent variables, moderator and dependent variable.

Independent Variable: Culture

Dependent Variable: Organizational Success

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
CUL	.189**	.180**	.305***	.321***
Vendor_NUMB	.123	.130	.109	.084
CUL_Vendor		.111		-.137*
R ²	.049**	.061**	.100***	.118***
ΔR^2		.012		.018*

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
CUL	.176**	.182**	.294***	.294***
Module_NUMB	.261***	.247***	.091	.090
CUL_Modul		.078		.051
R ²	.102***	.108***	.097***	.099***
ΔR^2		.006		.003

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
CUL	.185**	.163*	.295***	.293***
ERP_Exp_Implement_Yr	-.022	-.023	.054	.057
CUL_Exp_Yr		-.135		-.018
R ²	.035*	.052*	.092***	.092***
ΔR^2		.018		.000

IVs	Jamaica		USA	
	Model 1	Model 2	Model 1	Model 2
CUL	.184**	.183**	.279***	.274***
ERP_Exp_Implement_TWk	.097	.095	.134*	.137*
CUL_Exp_Yr		-.018		-.030
R ²	.043*	.044*	.106***	.107***
ΔR^2		.000		.001

* Model 1: Independent variables and dependent variable. Model 2: Independent variables, moderator and dependent variable.

IMPACTS OF HUMAN RESOURCES MANAGEMENT INNOVATIONS ON PRODUCTIVITY AND EFFECTIVENESS IN A MEDIUM-SIZE NON-PROFIT ORGANIZATION

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ABSTRACT

The purpose of this research is to conduct an empirical study on how human resources management (HRM) can positively affect productivity and effectiveness while investing in employee health and wellness, lowering employee turnover, implementing technology, and maintaining autonomy. Many studies examine productivity and effectiveness in the work place, but none as of yet have investigated the impacts of HRM innovations on productivity and effectiveness in a non-profit organization. This paper will fill the gap in the HRM literature involving productivity and effectiveness. To accomplish this goal, a survey of employees in the non-profit organization was conducted to collect sample data by the means of a questionnaire. A multivariate statistical analysis was performed to develop a regression model on productivity and effectiveness. Results show statistical significances in the overall models of productivity and effectiveness. The results also show that autonomy, technology, and health and wellness are factors in the relationship to employee productivity and effectiveness.

INTRODUCTION

Elements of human resource management (HRM) change constantly. Management is continually trying to find new innovations to increase productivity and effectiveness within the workplace. More innovations mean HRM has more choices and more responsibility. With a wide selection of options, management must choose those which will work the best to increase productivity and effectiveness. Many have conducted studies regarding the various innovations in HRM. These studies have shown that autonomy largely contributes to the creation of a satisfactory job atmosphere. When employees experience a good work environment, turnover decreases since employees are content. Higher employee satisfaction then results in higher productivity and effectiveness (Oum, Waters II & Yu, 1999). Likewise, health and wellness has also proven to affect productivity. Because healthy employees have fewer absences and perform their jobs more often, a company with healthy employees generally has higher productivity. Technology has also proven to be a factor in affecting productivity (Brynjolfsson & Yang, 1993; Bharadwaj, Bharadwaj & Konsynski, 1999).

This research attempts to build a strong case for these HRM innovations—autonomy, turnover, health, and technology—in terms of productivity and effectiveness in the workplace. Using empirical data, this study will show that these HRM innovations have a positive significant relationship on productivity and effectiveness. A sample from a medium-sized, non-profit organization was gathered through an in-person questionnaire survey. Of this company's approximately 400 employees, 110 were sampled in a 16-question door-to-door survey. Section 2 of this research paper reviews prior studies on HRM and productivity and effectiveness while Section 3 presents the methodology of this survey. Following this, section 4 examines the statistical results of the regression model pertaining to productivity and effectiveness. Section 5 discusses the results and managerial implications of this research paper as a whole. Section 6 then concludes this study on HRM innovations regarding productivity and effectiveness.

LITERATURE REVIEW

Bloom and Van Reenen (2010) found that HRM practices such as pay incentives, hiring and firing, teams, and autonomy affects productivity. Bloom and Van Reenen researched various methodologies and journals in order to composite their ideas into one paper. They concluded from this process that in certain instances productivity increased with HRM practices. They also concluded that studies of smaller firms and groups have been more successful in identifying a positive relationship between HRM and productivity.

Lazear (2000) reported that individual incentive pay resulted in higher productivity. Through using the Safelite Glass Company as the subject of his study, he found that the company replaced employee flat rate pay with pay-per-piece. For every windshield properly installed, the employee then receives a set amount of pay for that piece. Lazear looked 19 months before and after the implementation of the pay-per-piece incentive and found that productivity increased by 44% after the implementation. Half of this was due to individuals changing their working behaviors. The other half was contributed to selection effects. Fewer productive workers left and more productive workers were attracted to the job because of the high incentives.

Huselid (1995) found that effective Human Resource Management significantly related to productivity and financial performance. He found that investment in HRM effective practices, such as recruiting employees and training managers to manage staff effectively, financially benefitted the company. This one time investment in HRM practices results in higher profits for the company since it increases productivity and lowers employee turnover. Company performance increases overall when companies use effective HRM practices.

Tomer (2001) reported that the implementation of high performance work systems (HPWS) by management increases productivity as well. High performance work systems use employee involvement and skill training to create better employee morale, which in turn creates self-actualization and motivates employees. Motivation creates harder working employees who do their absolute best in their job performance and who together increase the productivity of the

company as a whole. This study concluded that implementing HPWS helps motivate employees and thus encourages productivity to flourish.

Ichniowski (1990) found that companies using HRM practices, such as flexible job design, effective workplace communication, and formal training, have the highest level of economic productivity. In contrast businesses that use Human Resource Management practices, such as grievance procedures, seniority-based promotions, and a standard non-flexible work schedule had substantially lower productivity. It seems that the “old style” of HRM practices are less productive in today’s business world.

Pfeffer (1998) reviewed studies on the auto, steel, and oil industries and reported that flexible and progressive Human Resources Management practices resulted in higher productivity. In the auto industry, flexible production methods that focused on team and employee involvement generated higher quality work and higher productivity compared to mass production methods. In the steel industry, more progressive HRM practices proved to have significant lower costs and higher proportions of productivity than traditional practices. Last, in the oil industry, HRM practices with multi-skilled trained and committed employees helped to lower maintenance costs and to raise refinery utilization standards.

MacDuffie (1995) studied Human Resource “bundles” in the auto industry. Through this, he found that Human Resources bundles associated with job rotation, suggestions, greater use of teams, workers performing quality tasks, and high commitment policies had high productivity. Plants that used bundles that consisted of mass production practices and low commitment policies also had high productivity. MacDuffie concluded that the innovative bundles that HRM used positively related to production and quality.

Hater, Schmidt, and Keyes (2002) reported that organizations that provide opportunities for employee fulfillment and growth have better success. The data indicated that workplaces with engaged employees generally have better customer service, are more productive and make higher profits. This study identified workplace well-being as a dependent component of a more profitable and productive organization.

Joo (1998) found that companies with employees who are financially stable and have a high sense of their own overall well-being showed better performance ratings and less absenteeism. Additionally, these employees used less work time for financial matters. Considered together, these factors correlated with better company productivity. The results of the study determined that for a company to increase its productivity it should offer financial education programs such as retirement plans, credit management, and better use of employee benefits to reduce the financial stress level of its employee.

Sims also reported that employee health and wellness affects productivity. Absenteeism often poses a high cost for companies. When employees miss work due to health issues, production does not reach the levels it could if those employees were present. This study showed that companies that promote employee health and wellbeing have 2.5 times higher productivity than their competitors.

Baicker, Cutler, and Song (2010) found that companies using Human Resources Management that focuses on employee wellness programs have higher productivity. Employers reduce their medical costs by having an employee wellness program. This also reduces absenteeism, which can also provide higher productivity. This wellness program benefits the company by lowering replacement costs of employees, attracting future employees, and providing a lower turnover rate.

Berry, Mirabito, and Baun (2010) reported that absenteeism lowered production in a company. However, presenteeism could also cause low productivity. Presenteeism is when an employee comes to work, but underperforms due to sickness or stress. This study reports that costs to employers from health-related productivity losses exceed those that employers spend on health insurance. Employers can increase productivity by implementing wellness programs, wellness education, and health insurance.

Neely (1999) found that employee morale significantly relates to productivity. Companies boosted their productivity by implementing programs in which management would engage in activities such as listening to employees, honoring their contributions, and providing feedback. Companies in which management implemented these types of programs had higher productivity than those that did not.

Kling (1995) reviewed articles and reported that HRM can increase productivity in an organization by implementing practices such as training, incentive pay, and employee involvement. The study shows that these HRM practices and productivity significantly correlate when implemented together.

Glewwe, Elias, and Kremer (2003) found that when schools in Kenya implemented pay incentives students performed better on standardized tests. Schools that produced the highest test scores received a monetary reward to disburse to teaching staff. This incentive motivated teachers to improve their quality of teaching and, thus, raised scores. The incentive motivation shows that employees respond positively to pay incentives by raising productivity.

Bailey (1993) reported that HRM practices could influence productivity through provisions of organizational structure. Such provisions encourage participation among employees and allow them to provide input for improvements regarding their jobs. Examples of these structural provisions would include job rotations, quality circles, and cross-functional teams.

Bartel (1994) found that the HRM implementation of a training program boosts productivity. Firms with lower productivity in 1983 implemented employee- training programs. Those firms showed a significant increase in productivity when measured again 1986.

Cutcher-Gershenfeld (1991) reported that firms that adopt labor relations emphasizing cooperation and dispute resolution have higher productivity. The study also reports that they have lower costs, less scrap, and greater return to direct labor hours. The study compared these firms to those that implemented the “traditional” adversarial labor relations practices.

Brynjolfsson and Yang (1993) found that, even though past studies found either a lack of evidence or an insignificant correlation that related technology to productivity, recent studies have found the opposite. With new methodologies available, various researchers have found that

productivity improves when technology is present. Analyzing studies on productivity and technology shows a significantly relation between technology and productivity. Companies that use technology in the business process generally have an increase in not only productivity, but also consumer surplus and economic growth.

Bharadwaj et al. (1999) reported that, when controlling a variety of industry factors and firm-specific variables, data from a five-year period shows that information technology significantly relates to firm performance and productivity. Research on the strategic flexibility and intangible value of technology proved significant in regards to future performance and productivity. This research shows a significant relationship between technology and productivity increases.

Katz, Kochan, and Gobeille (1983) and Schuster (1983) both reported that when employee quality of work life (QWL) was respectable productivity increased. QWL refers to the work environment as well as the job at hand. When the quality of work life is satisfactory to employees, they want to stay at their company and produce prime output. When labor management teams also increased quality circles productivity significantly increased. QWL not only increases productivity, but it also lowers turnover.

Oum et al. (1999) found that in the railroad industry managerial autonomy increased productivity and effectiveness. The use of new innovated methodologies determined the impacts which autonomy had on productivity and effectiveness. A review of various European studies showed that the autonomy of managerial employees in the railroad industry proved to have a positively significant effect on productivity and effectiveness.

Many studies consider the need for HRM to improve their health and wellness plans. Many more studies consider HRM programs as a whole and how they may impact work performance. Many of these show that autonomy increases productivity and effectiveness; however, no study was found to encompass all four variables into productivity and effectiveness. This study proposes a framework for HRM innovations in which an organizational culture strives for a balance of four factors: autonomy, technology, limited turnover, and health and wellness. Thus, this paper hypothesizes that HRM innovations will increase productivity and organizational effectiveness.

METHODOLOGY

Autonomy is a factor that affects both productivity and effectiveness. A review of European studies in the railroad industry showed that autonomy in managerial positions improved productivity and effectiveness. New innovated methodologies have also proven the significance of autonomy on productivity and effectiveness (Oum et al., 1999; Bloom & Van Reenen, 2010).

H1 Autonomy is a significant factor in productivity and effectiveness.

Technology also affects productivity. Past studies have shown no significance between technology and productivity; however, researchers have been able to find a significant relationship using new methodologies. Companies that implement technology into their business processes

have shown an increase in productivity, consumer surplus and economic growth. (Brynjolfsson & Yang, 1993; Bharadwaj et al., 1999)

H2 Technology significantly relates to productivity and organizational effectiveness.

Health and wellness is a factor of productivity. Research has proven that financially stable employees have fewer stressors in their lives and are more productive. This financial stability also prevents employees from using work time to address financial matters. Additionally, physically healthy employees tend to have fewer absences from work. In return, their presence in full health boosts productivity in the work place. (Baicker et al., 2010; Berry et al., 2010)

H3 Employee health and wellness makes a significant impact on productivity and organizational effectiveness.

Employee turnover also affects productivity. When an employee has a respectable quality of work life (QWL) that employee does not feel the need to find another job. This ultimately lowers employee turnover. QWL consists of a healthy work environment and high employee morale. High employee morale commonly comes from encouraging employee input and giving employees attainable tasks. (Katz, Kochan, and Gobeille, 1983; Schuster, 1983)

H4 Employee turnover significantly relates to productivity and organizational effectiveness.

A main hypothesis for this research states that improved employee health and wellness, lower employee turnover, and the implementation of technology increases productivity and effectiveness in the workplace. Autonomy not only improves productivity, but also effectiveness. The framework surrounding this research is presented in Figure 1.

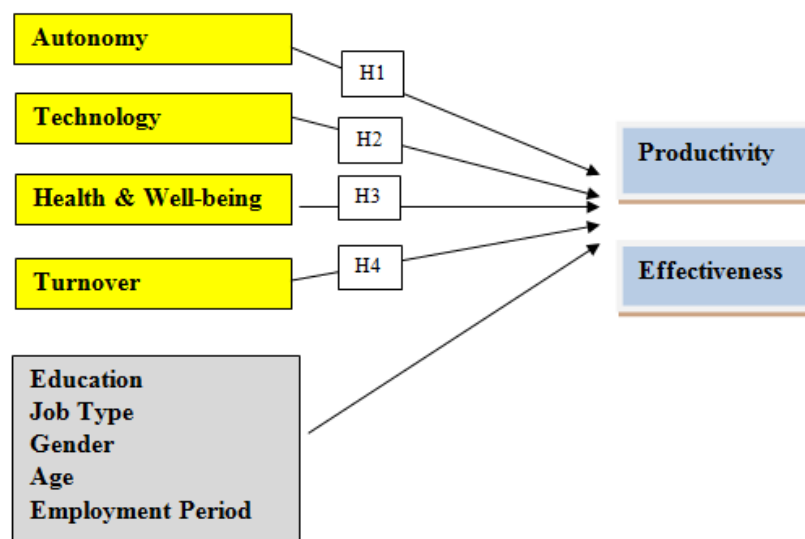


Figure 1

To conduct hypothesis testing, a multiple regression model was produced. The multivariate statistical model uses employee productivity (Y_1) and effectiveness (Y_2) as a representation for the dependent variable. Four factors describing HRM strategies serve as independent variables: autonomy, turnover, health and wellness, and technology. Each factor is measured in terms of productivity and effectiveness.

For measuring the impacts on productivity, four variables are created as autonomy (X_2), turnover (X_4), health and wellness (X_6), and technology (X_8). For measuring the impacts on effectiveness, additional four variables are created as autonomy (X_1), turnover (X_3), health and wellness (X_5), and technology (X_7).

To enhance the regression model reliability, the statistical model includes pertinent variables such as job type (X_{11-1} ; 0=non-manager, 1=manager), gender (X_{12} ; 0=male, 1= female), education (X_{13-1} ; 0=non-graduate school, 1= graduate degree), age (X_{14-1}), and HRM evaluation (X_{16} ; 0=non-satisfactory HRM, 1=satisfactory HRM).

We propose two models: (1) productivity model (2) effectiveness model. The productivity model is expressed as following:

$$Y_1 = \beta_0 + \beta_2 X_2 + \beta_4 X_4 + \beta_6 X_6 + \beta_8 X_8 + \beta_{11-1} X_{11-1} + \beta_{12} X_{12} + \beta_{13-1} X_{13-1} + \beta_{14-1} X_{14-1} + \beta_{16} X_{16}$$

The effectiveness model is described as follows:

$$Y_2 = \beta_0 + \beta_1 X_1 + \beta_3 X_3 + \beta_5 X_5 + \beta_7 X_7 + \beta_{11-1} X_{11-1} + \beta_{12} X_{12} + \beta_{13-1} X_{13-1} + \beta_{14-1} X_{14-1} + \beta_{16} X_{16}$$

Research hypotheses provide the basis of the survey questionnaire. A survey was conducted at a medium size non-profit organization in the Midwest with an annual operating budget of about 36 million dollars. The survey questionnaires were sent to all 413 full-time employees.

RESULTS

Out of 413 employees, 110 returned questionnaires in the first survey request. This results in 26.6% response rate. Descriptive statistics show that out of the 110 responses, 24 employees occupied managerial positions (21.8%) and 86 non-managerial positions (78.2%). Of those non-managerial positions held, 27 were classified as technical (24.5%), 31 as clerical (28.2%), and 28 as student workers (25.5%). Two employees had only a high school diploma (1.8%), 52 had some form of college (47.3%), 31 had a Bachelor's degree (28.2%), 16 had a Master's degree (14.5%), and 8 had a Doctorate degree (7.3%). Of the 110 employees, 84 were female (76.4%) and 26 male (23.6%). The age groups of the employees were as follows: three under the age of 20 (2.7%), 40 between the ages of 20-30 (36.4%), 20 between the ages of 31 and 40 (18.2%), 16 between the ages of 41-50 (14.5%), 22 between the ages of 51-60 (20.0%), seven between the ages of 61-70 (6.4%), and only one employee over the age of 70 (.9%). The employees were also surveyed on

whether Human Resources were doing a satisfying or dissatisfying job. Of the 110 responses 55 believe that HR was doing a satisfactory job (50.5%) and 54 believed HR was unsatisfactory (49.5%).

Table 1 shows the results of Pearson Correlation analysis in terms of productivity.

Table 1 PEARSON CORRELATIONS RELATED TO PRODUCTIVITY											
	Q10	Q2	Q4	Q6	Q8	Job	EMP	EDU	Age	Gen	HR
Productivity (Q10)	-	.359***	.246***	.365***	.384***	-.026	-.143	-.114	.047	-.040	.099
Autonomy (Q2)		-	.420***	.238**	.304***	.019	.151	.116	.082	.110	.004
Turnover (Q4)			-	.281***	.359***	.114	.072	-.004	.021	.014	.065
Wellness (Q6)				-	.365***	.031	-.072	-.025	-.057	.124	.144
Technology (Q8)					-	.081	-.011	-.051	-.042	-.049	.102
Job						-	.238**	.216**	.280***	.030	-.198**
Emp Period (EMP)							-	.325***	.630***	.069	-.314***
Education (EDU)								-	.474**	.069	-.438***
Age									-	.101	-.387***
Gender (GEN)										-	-.081
HR											-
*p<0.10, **p<0.05, ***p<0.01											

Table 2 shows the results of Pearson correlation analysis, in terms of organizational effectiveness.

Table 2 PEARSON CORRELATIONS RELATED TO EFFECTIVENESS											
	Q9	Q1	Q3	Q5	Q7	Job	Q12	EDU	Age	Gen	HR
Effectiveness (Q9)	-	.287***	.235**	.286**	.342***	-.127	-.124	-.130	-.030	-.043	.116
Autonomy (Q1)		-	.457***	.082	.293**	-.026	.130	.111	.053	.034	-.057
Turnover (Q3)			-	.316***	.417***	.122	.044	-.021	.043	-.025	-.024
Wellness (Q5)				-	.303***	.138	.000	.031	.029	.051	-.005
Technology (Q7)					-	.095	.041	-.061	-.073	-.109	.136
Job						-	.238**	.216**	.280***	.030	-.198**
Emp. Period (Q12)							-	.325***	.630***	.069	-.314***
Education (EDU)								-	.474***	.069	-.438***
Age									-	.101	-.387***
Gender (GEN)										-	-.081
HR											-
*p<0.10, **p<0.05, ***p<0.01											

Results show statistical significance in the multiple regression model on employee productivity as described in the methodology portion of the report [$R^2 = 0.505$, $F(4,105) = 9.005$]. Variance inflation factors show that no serious multicollinearity is present in the model. All VIFs are less than five. Findings show that autonomy, health and wellness, and technology ($p < 0.05$) significantly affect productivity, as shown in Table 3. But the turnover variable shows no significant relationship with the organizational productivity.

Table 3 PRODUCTIVITY MODEL $R^2 = 0.505, F(4,105) = 9.005^{**}$						
X_j	Acronym	Source	b_j	SE	SRC	t
X_2	Autonomy	Q2	.254	.102	.235	2.2484*
X_4	Turnover	Q4	.001	.114	.001	.009
X_6	Health and Wellness	Q6	.187	.077	.225	2.441*
X_8	Technology	Q8	.228	.095	.230	2.412*
$*p < .05, **p < .01$ Source refers to # of the survey questionnaire. b_j = Unstandardized regression coefficient for X_j SE = Standard error of unstandardized b_j SRC = Standardized regression coefficient of X_j						

Evidence also shows that autonomy, health and wellness, and technology ($p < .05$) all significantly affect effectiveness, as shown in Table 4. The turnover variable did not prove to be statistically significant in the effectiveness model.

Table 4 EFFECTIVENESS MODEL $R^2 = 0.439 F(4,105) = 6.274^{**}$						
X_j	Acronym	Source	b_j	SE	SRC	t
X_1	Autonomy	Q1	.245	.114	.215	2.147*
X_3	Turnover	Q3	-.027	.132	-.022	-.208
X_5	Health and Wellness	Q5	.186	.085	.207	2.182*
X_7	Technology	Q7	.241	.106	.226	2.275*
$*p < .05 \quad **p < .01$						

DISCUSSION

Evidence of this study supports the finding that the autonomy factor in the literature review significantly relates to productivity (Oum et al., 1999; Bloom & Van Reenen, 2010). The literature did not support the idea that this variable significantly relates to the effectiveness model, however. The literature review did support the evidence of health and wellness being significantly related to productivity (Baicker et al., 2010; Berry et al., 2010). Overall, the evidence shows that health and wellness of employees affect both the productivity and effectiveness model. While the literature review did not support the idea that health and wellness significantly relate to effectiveness, this research paper found a significant relationship. The evidence and the literature review both support the claim that technology impacts productivity (Brynjolfsson & Yang, 1993; Bharadwaj et al., 1999). Literature did not support the evidence found that suggested technology impacts effectiveness within the work place. However, the evidence shows no significance between turnover and productivity and effectiveness, a finding inconsistent with the literature review (Katz et al., 1983; Schuster 1983).

The results have important managerial implications. The findings of this study suggest that the factors of autonomy, technology, and health and wellness affect both productivity and effectiveness. Both the effectiveness model and the productivity model have shown significant

increases with these factors present in an organization. However, both the productivity and effectiveness model have shown no significance in the turnover rate impacting productivity and effectiveness. Evidence largely suggests that human resources management innovations can contribute to increasing productivity and organizational effectiveness. An organization can increase effectiveness and productivity by providing more technology, granting more autonomy, and offering more health and wellness programs to employees.

CONCLUSION

This study has shown that the autonomy and health and wellness of employees as well as a company's use of technology affect both productivity and effectiveness in an organization. However, the factor of turnover rate has not shown to be significantly related to productivity and effectiveness. Other factors, such as age, gender, education, years employed with a company, and overall perspective of HR have effect on the variables of autonomy, health and wellness, and technology. Further studies on this subject matter should investigate the impacts of HRM innovations on productivity and effectiveness. Further studies could also expand the survey pool since this study's small sample size limited the implications this study could make on a grand scale. Additionally, one could further investigate HRM by sampling a for-profit organization, gathering a larger sample size, researching other sectors of the business world and investigating the relationships between turnover rate and productivity and effectiveness in the work place. This research provides a HRM literature review with empirical evidence regarding the importance of HRM innovations of productivity and effectiveness within a medium-size, non-profit organization. The evidence suggests that managers can achieve an increase in productivity and effectiveness by implementing HRM innovations that can result in organizational success for a company.

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LMX RELATIONSHIPS AND “SOCIAL DEATH”: A CURVILINEAR EFFECT ON OSTRACISM

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ABSTRACT

Referred to as “social death”, ostracism produces both psychological and physical consequences. It is known to cause stress, depression, loneliness, (Baumeister & Leary, 1995), and turnover intent (Ferris et al., 2008), subsequently, ostracism can impact leader-subordinate and coworker dyadic relationships. The leader-member exchange (LMX) theory focuses on the dyadic relationship between a leader and subordinate. Traditionally LMX theorists emphasize the characteristics and implications of low- and high-quality leadership exchange levels, to the exclusion of middle-quality employees’ leadership relationships. Employees in high-quality relationships experience higher job satisfaction, higher organizational commitment, and lower turnover rates (Graen & Uhl-Bien, 1995). Whereas, employees in low-quality relationships experience outcomes contradictory to employees in high-quality relationships. The scarce research that has been conducted on middle-quality employees suggests their organizational outcomes rival high-quality LMX employees. With few exceptions, LMX theorists have concentrated on the positive outcomes for employees in high-quality relationships and neglected to explore the potential negative consequences that could result from being a member in these relationships. Drawing from a sample of 132 employees in two different organizations, I explored whether identification with the adverse and preferential status associated with low- and high-quality relationships led employees to experience ostracism from coworkers. I hypothesize that middle-quality employees would be less subjected to ostracism than low- and high-quality employees. In other words, a curvilinear relationship between LMX quality and ostracism will exist. My results illustrated a polynomial (S-shaped) effect existed between LMX quality and ostracism, therefore, supporting my hypothesis. My results indicated that LMX quality between an employee and his or her leader might have important ramifications for their ensuing coworker interactions.

INTRODUCTION

A non-response to a cheerful good morning greeting, the avoidance of eye contact, or a coworker’s quick exit upon a colleague’s entrance are all subtle-like behaviors that regularly take place in today’s work environment – and represent examples of workplace ostracism. Ostracism that takes place in the work environment is defined as “the extent to which an individual perceives that he or she is ignored or excluded by others” (Ferris, Brown, Berry, & Lian, 2008, p. 1348). When a human being’s fundamental need to belong (Baumeister & Leary, 1995) is violated in the workplace whether intentional or accidental, the consequences impacts both individuals and organizations and falls within the realm of deviant behavior. Ostracized employees experience stress, depression, and loneliness, (Baumeister & Leary, 1995; Leary, Tambor, Terdal, & Downs, 1995) which imperils their emotional and mental well-being and consequently, negatively impacts their performance and job satisfaction (Balliet & Ferris, 2013). Research also indicate that long-

term ostracism can adversely impact individuals' working memory, organization, and decision-making (Buelow, Okdie, Brunell & Trost, 2015) also resulting in costly organizational outcomes.

Referred to as "social death", being ostracized subsequently, impacts social networks within the organization, such as the dyadic relationships between leaders and subordinates and between coworkers. One of the most researched leader-subordinate theories is leader-member exchange (LMX) (Schyns & Day, 2010), which includes in its core the differential treatment of employees, thereby establishing a range of low- to high- quality relationship classifications (Graen & Uhl-Bien, 1995). A high-quality relationship with a leader is characterized as possessing a high degree of mutual trust, respect, and admiration. On the other hand, a low-quality relationship lacks these merits. Consequently, employees involved in high-quality relationships become beneficiaries of rewards, career support, and favors from their supervisor and low-quality relationship employees, optimistically, receive formal job description benefits (Gerstner & Day, 1997; Graen & Uhl-Bien, 1995; Wayne, Shore, & Liden, 1997).

Employees are very aware of their LMX classification which can lead to negative attitudinal and behaviors in employees (Vidhyarthi, Liden, Anand, Erdogan, & Ghosh, 2010). Research suggest employees' comparison of their LMX ranking acts as a "motivational force" behind these attitudes and behaviors (Mussweiler, 2003; Vidhyarthi et al., 2010). Therefore, a leader's dissimilar treatment of employees can impact coworkers' relational currency with each other, and consequently, these employee dispositions can result in anti-social behavior such as ostracism among the differentiated groups.

Moreover, research suggests high- and low-quality, also referred to as in-group and out-group, members may avoid each other in response to being ostracized (Ferris et al., 2008). Hence, this suggests bilateral targeting of ostracism between the two groups. Indeed, Twenge, Baumeister, Tice, and Strucke (2001) research contend ostracism is causally linked to antisocial behaviors toward the source of the exclusionary act. It is conceivable that many individuals will experience being in the roles of the victim and source during their work career. However, this also proposes that an employee may take on both the roles of source and victim of ostracism in a single workplace relationship.

While there are no studies that the author is aware of that directly evaluate a relationship between ostracism and LMX, examining a possible relationship between these two constructs contributes to LMX literature because significant research portrays high-quality LMX relationships as a generator of positive outcomes. Only a few studies have explored an exception to this school of thought. The limited research has found a positive relationship between high-quality LMX subordinates and stress, turnover intent, and turnover (Harris, & Kacmar, 2006; Harris, Kacmar, & Witt, 2005; Morrow, Yoshinori, Crum, Ruben, & Pautsch, 2005). Therefore, exploring additional possibilities that may contradict this asymmetrical research perspective can provide new insight into LMX relationships and augment extant research that is establishing negative outcomes associated with high-quality LMX relationships.

Similarly, ostracism research has taken an unbalanced approach and focused significantly on the target with limited research concerned with the source of ostracism (Grahe, 2015). Bearing in mind that workplace ostracism was operationalized (see Ferris et al., 2008) only eight years ago, this nascent research stream is experiencing a strong interest from various areas, i.e. human resources, psychology, communication, management, management decisions, and marketing based on the more than 160 citations of Ferris' and colleagues (2008) paper in Google Scholar. As with any emerging research, researchers have identified several gaps in the research. One of these opportunities is a lack of motives and factors that predict when individuals choose to

ostracize each other in the workplace (Gooley, Zadro, Williams, Svetieva & Gonsalkorale, 2015). This paper contributes to this limited knowledge by positing several motives (i.e., envy, communication, poor interpersonal skills, etc.) of workplace ostracism that I have integrated with the LMX theoretical framework.

Therefore, the purpose of this study is to explore possible reasons behind workplace ostracism and test a curvilinear relationship between LMX and ostracism with the extremes of high-quality and low-quality relationships experiencing greater ostracism than mid-quality employees. This study is in response to a need to increase the focus on more universal and subtle forms of deviant behavior such as ostracism that encompass all levels of people in an organization (Ferris et al., 2008). Additionally, our analytics responds to recent calls for more sophisticated treatments of research constructs, suggesting that a “paradigmatic shift from linear to curvilinear models is needed to improve management theory and practice” (Pierce & Aguinis, 2013, p. 317).

THEORETICAL BACKGROUND

Workplace Ostracism

In recent years, researchers have strived to augment comprehension of workplace ostracism (Ferris, Yan, Lim, Chen, & Fatimah, 2015) particularly since this phenomenon contributes to outcomes at individual, dyadic, group, and organizational levels. Most research on workplace ostracism focus on the victim's (target) perspective and its accompanying consequences with less focus on the initiator's (source) perspective and antecedents of ostracism (Gooley et al., 2015; Grahe, 2015). Ostracism threatens the fundamental needs of humans – belongingness, self-esteem, control, and a meaningful existence (K.D. Williams, 1997, 2001) and manifests in both our personal and work lives. The sense of belonging is diminished by ostracism since it endangers one's social identification with a particular work group. An act as minor as being ignored in a cyber-ball-toss game has been found to threaten one's sense of belonging (K. D. Williams, Cheung, & Choi, 2000). Employees who are ostracized by their peers have a tendency to self-examine themselves to determine if they are at fault or if they instigated the act. In other words, is there something wrong with them, which threatens their sense of self-esteem (K.D. Williams, 2001). This situation also suggests a loss of control because a target of ostracism may be perplexed when they do not know if they provoked the act which then suggests they are at a loss of how to control and terminate the situation (K.D. Williams, 1997; Zadro, K. D. Williams, & Richardson, 2004). Ostracism also suggests an individual may have nothing of value to contribute to a group and, in essence, he or she is more of a liability rather than an asset which threatens one's sense of meaningful existence (Pyszczynski, Greenberg, Solomon, & Schimel 2004).

Debate exists on whether ostracism is a distinct construct or a component of broader constructs. Ostracism has been viewed as a facet of interpersonal deviance (Bennett & Robinson, 2000), workplace bullying (Fox & Stallworth, 2005), aggression (Neuman & Baron, 1998) and social undermining (Duffy, Ganster, & Pagon, 2002). Ferris et al. (2008) argue behaviors such as bullying, aggression, and social undermining involves interaction between the source and victim which is behavior contradictory to the unilateral foundation of ostracism. The primary characteristic behavior of ostracism is to disregard or ignore an individual which theoretically differs from the aforementioned forms of deviant behavior. However, Ferris and colleagues (2008) suggest ostracism may co-occur with bullying, aggression, or social undermining.

Unlike some deviant behaviors, ostracism is shrouded with ambiguity, and the intentionality behind an ostracism occurrence makes it an aversive and painful experience for

individuals (K.D. Williams, 1997). Whether the act is intentional or not, there is not a significant difference in response to motive. Indeed, research conducted by Zadro et al. (2004) found that individuals tend to perceive ostracism indiscriminately. In other words, irrespective of the circumstances, the pain associated with ostracism signals something is amiss with the social connection and influences the victim's desire to remedy the situation (K.D. Williams & Zadro, 2005; Zadro et al., 2004) either with prosocial or antisocial behaviors. Research indicate the psychological impact of ostracism produces contradictory social behaviors in targets. Ostracized victims either respond by increasing their compliance and productivity to regain good favor or by engaging in aggressive or irrational behaviors, and, in some cases, they may withdraw from the situation or source (Robinson, O'Reilly, & Wang, 2013) to protect their psychological stability.

Workplace ostracism is estimated to cost organizations billions of dollars a year (Bennett & Robinson, 2000). As with other deviant behaviors, ostracism produces work-related stress, which can cost organizations in terms of sick days and insurance costs; additionally, associated turnover from ostracism results in a loss of intellectual capital, loss of organizational knowledge, and added expenses associated with the recruiting and training of new employees (Ferris et al., 2008). Despite high costs to an organization from employees' health and well-being and reduction to its bottom line, workplace ostracism has not received the attention in organizational behavior that it warrants given its apparent pervasiveness (Ferris et al., 2008; Sommer & K. D. Williams, 1997; K. D. Williams, 2007). Sommer and Williams (1997) contend that "there have been no programmatic attempts to examine this phenomenon empirically or to integrate theoretically its impact on individuals' emotions, cognitions, and behaviors" (p. 693). In the past few years, great strides have been achieved in organizing the literature, clarifying the construct, and outlining the prominent issues at hand (Robinson, et al., 2013). A central insight notes that "given there is very little research on antecedents of ostracism, we encourage future studies to examine where, when, and under what conditions ostracism is most likely to occur in organizations" (Robinson et al., 2013. p. 210). Intuitively, to comprehend how individuals experience ostracism, researchers need to explore the impact of ostracism from both the source's and victim's perspectives. Generally, an act of ostracism is initiated by someone, and only limited research has explored the culprit or source of ostracism occurrences.

The dyadic relationships between low- and high-quality LMX members provide fertile ground to explore this phenomenon. Interestingly, the intensity of ostracism is not lessened by the type of relationship between the target and source. K.D. Williams et al. (2000) argue being ostracized by in-group or out-group members does not diminish the effects of ostracism. Surprisingly, Gonsalkorale and K. D. Williams (2007) provide evidence of this by demonstrating being ostracized by the Ku Klux Klan can even have a negative impact.

Leader-Member Exchange

The LMX process characterizes the relationship between a leader and an employee, focusing on their respective roles and the subsequent quality of the relationship. According to the existing literature (Graen & Uhl-Bein, 1995; Scandura, 1999; Sparrow & Liden, 1997), leaders form unique relationship-based social exchanges with their subordinates based on trust and liking. The highest levels of trust and fondness may lead to a high-quality relationship whereas the lowest quality relationship is characterized by a strict economic exchange that is embodied by the formal job description (Blau, 1964).

High-quality LMX relationships

Research (Harris & Kacmar, 2006; Hofmann, Morgeson, & Gerras, 2003) has indicated that employees in high-quality relationships are more dependable; exhibit organizational citizenship behaviors (OCBs); have lower turnover rates, greater organizational commitment, greater job satisfaction (Graen & Uhl-Bien, 1995; Liden, Wayne & Stilwell, 1993) and have less role-related stress (i.e., role overload, role ambiguity) than low-quality LMX employees. In high-quality LMX relationships, employees' bonds with their leaders are built on the foundation of mutual trust, respect, honesty, communication, and sharing of social networks (Dienesch & Liden, 1986; Graen & Uhl-Bien, 1995; Harris et al., 2005; Liden & Graen, 1980). This creates an appearance of a peer-to-peer relationship rather than a supervisor-subordinate relationship (Kramer, 2004). A reciprocity component also exists in their relationship, as high-quality LMX employees are expected to perform beyond their contractual duties (Northouse, 2010; Wayne & Green, 1993; Wayne et al., 1997). Consequently, high-quality LMX relationships between employees and managers result in positive outcomes for the organization (Gerstner & Day, 1997; Graen & Uhl-Bien, 1995).

Middle-quality LMX relationships

As all employees by definition cannot be rated highest, it is important to recognize that the remaining majority is not likely to be ranked as low-quality. There will generally be a group that simply falls in between, as the *middle-quality* group. The importance of studying and understanding middle-quality relationships within firms has been suggested for decades (Fairhurst & Chandler, 1989; Graen & Schieman, 1978; Kramer, 1995), yet researchers have generally persisted in focusing on the more dramatic effects of the highly desirable characteristics of the very best performers as differentiated from the lowest quality employees.

From an empirical perspective, the handful of studies that have been conducted on this middle-quality group provides evidence that this group indeed merits more distinct recognition for their role in organizations (Nelson, Stafford, & Wright, 2011). Vecchio and Gobdel (1984), Liden and Graen (1980), and Kramer (1995) all found unexpected positive outcomes for this group as compared to the high-quality group. For example, there are indications that members of this middle-quality group may have more open communication with their supervisor, possess the highest levels of job satisfaction, engage in the highest level of administration decision-making, and experience the lowest levels of stress and role ambiguity. In addition to these findings, Harris and colleagues (2005) found evidence of lower turnover rates for middle-quality LMX members as compared to the higher quality group.

Low-quality LMX relationships

Evidence repeatedly shows significant differences between performance and outcomes for employees in high-quality versus low-quality LMX relationships (Northouse, 2010). In particular, the low-quality characteristics and attributes are virtually antithetic to the high-quality state. Low-quality LMX is predictive of negative work outcomes, higher propensity for turnover, lower quality work, less productivity, less motivation to be creative problem solvers, and less incentive to work toward fulfilling an organization's goal. Not surprisingly, low-quality LMX employees are also more apt to file grievances.

The ensuing behaviors and attitudes from low-quality LMX employees are likely to affect their interpersonal relationships in the workplace, especially contingent on the perceived procedural and interactional justice in the LMX process (Scandura, 1999). Moreover, low-quality LMX employees by definition lack the intimate manager-employee interactions that high-quality LMX employees enjoy (Dienesch & Liden, 1986; Fairhurst & Chandler, 1989; Kramer, 1995; Liden & Graen, 1980). Accordingly, low-quality LMX employees receive the more mundane assignments, have less supervisory support, get little (if any) input into decision making, and are excluded from their leader's social networks.

The perceived inequalities created by these different LMX groupings can have a damaging effect on the feelings, attitudes, and behaviors of members not included in the high-quality group (Northouse, 2010) possibly leading to behaviors (i.e., workplace deviance, turnover, ostracism), typical of social exclusion from a desired group. Hence, a leader's differential treatment of employees can affect coworkers' interpersonal relationships and can lead to the ostracism of certain employees (Sias (1996, 2009).

Ostracism and Leader-Member Exchange

In general, LMX researchers have largely ignored the negative consequences that may be associated with being an employee involved in a high-quality relationship (Bolino & Turnley, 2009; Rousseau, 2004) and focused more on the damaging outcomes associated with low-quality relationships (Gerstner & Day, 1997). More specifically, there is a scarcity of research that examines interactions between high- and low-quality employees as a result of their leaders' differentiation treatment (Bolino & Turnley, 2009; House & Aditya, 1997; Maslyn & Uhl-Bien, 2005; Sparrowe & Liden, 1997). The dissimilar treatment of followers may adversely influence coworkers' interpersonal relationships (Sias, 1996, 2009) resulting in attitudinal and behavioral responses (Vidyarthi et al., 2010).

From an evolutionary psychological perspective, individuals tend to avoid group members who do not create equity in dyadic social exchanges (Kurzban & Leary, 2001). Hence, group members with low-quality LMX relationships may be ostracized due to their poor social skills and therefore, seen as a social liability to the group (Wesslemann, K. D. Williams, & Wirth, 2014; Wesslemann, Wirth, Pryor, Reeder, & K.D. Williams, 2015). Another line of research suggests that when low-quality LMX members receive discriminating treatment from their leader that coworkers perceive as warranted (possibly stemming from an employee's poor job performance, habitual tardiness, etc.), they may be ostracized (Sias, 2009) because they are viewed as burdensome to the group (Wesslemann, et al., 2015), and consequently threatens the effectiveness of the group. Ostracism may also occur specifically because other members do not want to be thought guilty of the same work-related behaviors and attitudes by association such as the "halo effect" with low-quality LMX members (Sias, 2009; Sias & Jablin, 1995). Furthermore, members may resent employees who are "slackers" (not carrying their share of the workload) and subsequently ostracize these employees (Kurzban & Leary, 2001).

In contrast, high-quality group members may be ostracized because they are perceived as exploiting a leader's resources. Leaders have a limited amount of resources, i.e., time, socioemotional, and tangible resources which may be more readily accessible to high-quality employees. For an employee to be a leader's favorite, that person is more than likely receiving resources from the leader that are not being distributed to all employees equitably, thus the resentment from coworkers. From the perspective of conservation of resources (COR) theory (Hobfoll, 1988), which suggests people are motivated to acquire resources which can include a

supervisor's attention, therefore, the perception of lopsidedness in the distribution of resources may encourage employees to commit deviant behavior such as ostracism. According to Brotheridge & Lee (2002), perceived loss of resources can cause psychological discomfort. Thus these employees may resort to maladaptive behavior such as ostracism of high-quality LMX members to cope.

While high-quality employees may be ostracized due to their perceived undue benefits, they may also compel ostracism by representing a threat to lower quality employees. For instance, another consequence of high-quality relationships is open bidirectional communication between the leader and the member (Dienesch & Liden, 1986; Graen & Uhl-Bien, 1995). As a part of the social exchange obligations of the relationship (Blau, 1964), the high-quality member may become the leader's "eyes and ears" in a business unit; the leader may depend on that member to share information (that may otherwise not be available) about other members in his or her group. Vadera, Pratt and Mishra (2013) elaborated a perspective on "constructive deviance," which by definition entails "behaviors that deviate from the norms of the reference group and conform to hypernorms" (p. 1223). In their model of antecedents, e.g., whistleblowing, to such behaviors, they posited a positive role for LMX exchange as a mechanism of felt obligation driving such behaviors. Thus, employees may view the high-quality member as an infiltrator and ostracize him or her for that reason.

Another possible motive for low-quality LMX members to ostracize high-quality LMX member is an employee may be perceived as receiving unwarranted favoritism from the leader and therefore, that employee may be ostracized for being the boss's "pet"; consequently, dislike and distrust develops as part of the relationship between the boss's pet and the other employees (Rousseau, 2004; Sias, 2009). Hence, high-quality LMX status attainment that is not founded on an employee's skill set, knowledge, and/or experience is likely to generate ostracism from lower-quality LMX employees. Yet, it is plausible to assume that the high-quality favored relationship of "boss' pet is warranted as part of the obligatory exchange characteristic of high-quality relationships.

Predictably, Schyns and Day (2010) suggest that members of "poor exchange qualities" may view members in high-quality relationships with jealousy, resentment, and possibly anger. By comparing differences in their LMX ranking, employees may develop envy which has been theorized to create negative effects in organizations (Cohen-Charash & Mueller, 2007). A study conducted by Kim, O'Neill, and Cho (2010) revealed a significant relationship between low-quality LMX members and envy. Subsequently, this led to decreased employee citizenship behavior toward envied co-workers suggesting ostracism.

Research also suggest a possible mutual ostracism phenomenon between the low- and high-quality LMX groups. In a recent study, Ferris et al. (2015) suggest workplace ostracism is viewed heavily with uncertainty and ambiguity by the target. In other words, since the initial act of ostracism is one-sided, it is difficult for the target to determine if the ostracism occurrence is due to something they did or did not do, if the perceived act was intentional or not, or if the act actually occurred. The obscure nature of workplace ostracism purportedly induces anxiety, an avoidance emotion, in the target rather than anger, an approach emotion. Ferris et al. (2015) hypothesized and supported that this type of anxiety would fully mediate the effect of workplace ostracism on avoidance-oriented counterproductive workplace behavior (CWB) such as refusing to speak with, ignoring, and/or hoarding information from co-workers. Whereas, individuals exhibiting approach-oriented CWB are visibly hostile and upset. This evidence supports a theoretical relationship between an individual being a target of ostracism and responding with ostracism by

avoiding social interactions with the source of the ostracism (Ferris et al., 2008; K. D. Williams, 2007).

Thus, it can generally be predicted that LMX and ostracism will be negatively related. However, I suggest middle-quality members are less likely to be targets of ostracism than both these groups (Nelson et al., 2011). Middle-quality members do not have the privileges granted to the high-quality members and therefore are not perceived as receiving an unfair amount of resources from the leader. Research indicates, though, that middle-quality group members have many positive outcomes that can rival those of high-quality members (e.g., high levels of job satisfaction, lower levels of stress and role ambiguity) (Kramer, 1995; Liden & Graen, 1980; Vecchio & Gobdel, 1984), so I do not expect them to be targets of ostracism based on poor work performance or attitudes. Rather, I expect such members to be less likely to perform at such a low level as to be perceived as burdensome or deviant to other members in the organization. Thus, I investigate:

Hypothesis: A U shape characterizes the relationship between leader-member exchange quality and ostracism. Specifically, ostracism is high when LMX quality is low, ostracism decreases when LMX quality is moderate to moderately high, and ostracism increases when LMX quality is relatively high.

METHOD

Sample and Procedures

Participants in this study included employees from a non-profit organization (whose mission is to assist disadvantaged youth and families) and employees from a for-profit organization (an insurance company). Both organizations are located in the southeastern region of the United States. Each organization had approximately 210 employees, providing 420 potential respondents. Potential respondents received an e-mail from one of the organization's executives, which informed employees of the survey and indicated that it was voluntary. Potential respondents were also informed that the survey was designed to understand the relationships between "employees and their managers" and "employees and coworkers." To insure confidentiality, participants received a pre-addressed envelope from their human resources manager to return the self-administered surveys; this offered anonymity from other employees if employees wished to complete surveys away from the worksite. A nominal incentive (i.e., \$5 gift card to Starbuck or Wal-Mart) was offered for their participation. Surveys were coded prior to distribution, and the respondents were "deidentified" through a third party to insure confidentiality and anonymity with the researchers.

Over a 4-week period, 67 employees from the nonprofit organization responded. From the for-profit organization, another 67 employees responded, but 2 surveys were discarded due to missing data. Of the 420 surveys distributed, 134 were returned for a response rate of 32%. Slightly more than 80% of the study participants were female. Over half the participants (53%) were married. Nearly half (48%) of the respondents were African American, with Caucasians comprising approximately 36%, and Hispanic, Asian, and other made up the remaining 16%. The average age of the respondents was 42 years, and over 52% had obtained a college degree. The average number of years that employees had been with their company was 5.5 years, and the average length of time respondents had been with their managers was 2.5 years.

Measures

Leader-member exchange. LMX was measured using the Scandura, Graen, and Novak (1986) 7-item LMX scale which was modified to an 8-item scale. I modified the scale because item 1 actually encompassed two questions. The question was stated as: “*Do you know where you stand with your leader? Do you usually know how satisfied your leader is with what you do?*” However, this question was separated into the two following questions: 1) “I usually know where I stand with my immediate supervisor.” and 2) “I usually know how satisfied my supervisor is with what I do.” This scale was selected based on Gerstner and Day’s (1997) meta-analysis, which determined that this scale had the best psychometric properties of all LMX-measuring instruments. Participants responded to a 7-point Likert-type scale (1 = strongly disagree to 7 = strongly agree). The full eight-item scale’s internal reliability is .94.

Workplace ostracism. Ostracism was measured using Ferris et al.’s (2008) 10-item scale. Sample items included “*Others ignored you at work*”, “*Others left the area when you entered*”, and “*Others avoided you at work*”. Response options corresponded to a 7-point Likert-type scale (1 = never to 7 = always). The scale’s internal reliability is .83.

Control variables. I controlled for race and sex since it has been determined that the quality of a leader and member’s relationship can be influenced by demographic similarities (Tsui & O’Reilly, 1989). I dummy-coded gender with men as “1” and women as “2”. Race was coded with Caucasian as “0”, African American as “1”, Asian as “2”, Hispanic as “3”, and Other as “4”.

Organizational tenure has been identified to have a significant impact on LMX relationships (Bauer & Green, 1996). Organizational tenure was measured in blocks of months. For example, 1 to 60 months was coded as 1; 61 to 120 months was coded as 2; 121 to 180 was coded as 3; and 181 to 220 was coded as 4.

In addition to these three variables, I controlled for job satisfaction because past research (Edwards, 1992) indicates its critical role in LMX relationships (Ferris et al., 2008). The job satisfaction scale consisted of 3 items from Cammann, Fichman, Jenkins, and Klesh’s (1979) Organizational Assessment Questionnaire. Participants responded to a 7-point Likert-type scale (1 = strongly disagree to 7 = strongly agree). A sample item from the scale is, “*All in all, I am satisfied with my job.*” The internal reliability for this scale is .86.

ANALYSES

Hierarchical regression analyses were conducted to test for a curvilinear effect to support our hypothesis. Prior to performing this procedure, I conducted a t-test to determine if it was appropriate to merge the data from both organizations into one sample. I next implemented two analyses to test for common method variance (CMV). A Harman One-Factor test (Podsakoff & Organ, 1986) was performed to determine if all of the items in the present study loaded on a single factor. I followed this test with a confirmatory factor analysis (CFA) to insure LMX and ostracism were two distinct constructs.

I performed hierarchical regression analyses to detect a nonlinear relationship between LMX and ostracism. In Step one, I entered the control variables of organizational tenure, ethnicity, gender, and job satisfaction. I next entered the linear LMX term followed by the quadratic term in the third step. Finally, a polynomial term for LMX was entered. During each step, I determined if the LMX term(s) explained a significant amount of variance. For example, if linearity is the best depiction of the LMX-ostracism relationship, then only the LMX variable should explain a significant amount of variance. On the other hand, if appending the squared LMX term explains a

significant amount of variance above the linear term, then a curvilinear form (either a U shape or an inverted U shape) would be more representative of the relationship between the two constructs. Ultimately, unexpected quadratic results may indicate that the relationship is more complicated, and deserves further tests, such as may be discovered with a cubed LMX term (i.e., a relationship reflecting two bends in the curve, hence an S shape).

RESULTS

Independence of Samples

I conducted a T-test to determine the appropriateness of combining the data from the two organizations into a single sample. The Levene's test was used to compare the organizations. The results indicated there were no statistically significant differences between the companies regarding gender ($t = .521, p = .604$) and organizational tenure ($t = .547, p = .586$). There were statistically significant differences between the two companies regarding job satisfaction ($t = 3.682, p = .000$) and ethnicity ($t = 3.399, p = .001$). Company 1 (the nonprofit organization) had significantly more African American employees (76%) than Company 2 (the for-profit organization) which had 23%, and their employees were more satisfied with their jobs than the employees of the for-profit organization. To recognize the differences across the organizations, effects due to job satisfaction and race were controlled for in the statistical analysis. I treated African American as the reference group when running analyses.

Nonresponse Bias

With a response rate from participants of 32%, there is the probability of nonresponse bias. Researchers consider a return rate of less than 75% as an indicator of a possible nonresponse issue (Gall, Borg, & Gall, 1996; Linder, Murphy, and Briers, 2001). There are several ways to address this issue 1) compare respondents to the population; 2) compare respondents to nonrespondents; 3) compare early to late responders; and 4) follow-up with a random sample of 10% - 20% of non-respondents (Lindner, Murphy, & Briers, 2001). Since research support that late responders are generally similar to non-responders (Miller & Smith, 1983), I utilized the "comparing early to late responders" method to determine if nonresponse bias was evident in this study.

Late respondents are defined by Lindner et al. (2001) as participants who respond after receiving the last reminder to complete a survey. If 30 or fewer responses are received, Linder et al. (2001) suggest using the last half (50%) of respondents' surveys to conduct a nonresponse bias analysis. There was a clear demarcation in receipt dates of the surveys received for this study. Based on the aforementioned method, there were 34 surveys that I designated as "late responders". I conducted a T-test on the LMX means of the two groups, and there was no statistically significant difference ($t = 1.511, p = .133$) establishing nonresponse bias as not an issue in this study.

Common Method Variance

The predictor and criterion variables were collected at the same time increasing the probability for Common Method Variance (CMV) (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). To detect the presence of CMV, I conducted a Harman One-Factor test (Podsakoff & Organ, 1986), where the basic premise is CMV is present if a single factor emerges from a factor analysis representing 50% or more of variance. Specifically, I conducted an exploratory factor analysis

(EFA) using a principal-components extraction and unrotated option, which yielded multiple factors with the first factor explaining approximately 35% of the variance. This provides some evidence that CMV should not overly influence the results of our testing.

In addition to the Harman One-Factor test, I conducted a confirmatory factor analyses (CFA) to establish sufficient convergent and discriminant validity among the LMX and ostracism constructs. Relative to the number of measurement items, I had a small sample size; therefore, to improve the ratio of N to items, I reduced the number of items (Little, Cunningham, Shahar, & Widaman, 2002). Based on factor analysis results, items with the highest and lowest loading for each construct were combined first, followed by the items with the next highest and lowest loadings and so forth. This resulted in four parceled indicators for LMX and five parceled indicators for ostracism. (Little et al., 2002).

I first tested a one-factor model with all items loading into one latent factor. As shown in Table 1, the one-factor model demonstrated poor fit to the data but was significantly improved with the two-factor model ($\Delta\chi^2 = 301.67, p < .00$). Therefore, LMX and ostracism were deemed distinct constructs.

Table 1
Confirmatory Factor Analysis Results for Leader-Member Exchange (LMX) and Ostracism

Competing Model	χ^2	<i>df</i>	$\Delta\chi^2$	Δdf	RMSEA	SRMR	CFI
One-factor model	343.91	27			.36	.26	.64
Two-factor model (LMX and ostracism)	42.24	26	301.67***	1	.07	.036	.98

Note. RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CFI = comparative fit index.

*** $p < .001$

Table 2 presents means, standard deviations, and intercorrelations. As predicted, LMX and ostracism were negatively and significantly related. Additionally, the control variables gender, and race (African Americans compared to “other” races) were significantly and positively related to ostracism. Not surprisingly, job satisfaction and LMX were significantly and negatively related to ostracism. Considering this, the analysis suggests that females, non- African American and non-Caucasian, and low-quality LMX relationship employees were more likely to perceive being ostracized.

Table 2
Means, Standard Deviations, and Intercorrelations.^a

	Mean	SD	1	2	3	4	5	6	7
1. Gender	.80	0.40	--						
2. Race (A-A & Caucasians)	.363	0.48	-0.06	--					
3. Race2 (A-A & Others)	.159	0.37	0.59	-.033***	--				
4. Tenure	1.64	0.95	0.08	0.15*	-.01	--			
5. Job Satisfaction	6.04	1.04	0.04	-0.05	0.05	0.03	--		
6. Leader-member exchange	5.48	1.25	0.05	-0.05	0.02	0.19*	0.58***	--	
7. Ostracism	1.52	0.64	0.15*	0.05	0.19*	-0.09	-0.17*	-.22**	--

^a $N = 132$

* $p < 0.05$. ** $p < 0.01$. *** $p < .000$

Regression Analyses

A hierarchical regression analysis was conducted to examine if, as predicted, the relationship between LMX and ostracism is better described as nonlinear (See Table 3). In Step 1, the control variables were entered, and this revealed that other races were significantly and positively related to ostracism. This suggested that women who were neither African American nor Caucasian reported higher levels of ostracism than men. The control variable contributed 7% to the variance. In Step 2, the main effect was examined. The linear LMX term was introduced to the equation, and there was a negative relationship with ostracism, but the relationship was not significant. The linear LMX term only contributed an additional 1.7% to the variance. For Step 3, I entered the quadratic LMX term and it was negatively and significantly related to ostracism. The quadratic LMX term explained an additional 5.7% of variance, which was considerably more than the variance explained by the linear LMX term.

The curvilinear result, though, was the opposite of our original hypothesis. I considered the issue of the possible distribution of our different levels of LMX employees; specifically, a very small tail of high LMX employees could be overwhelmed by the results of lesser LMX relationships. Therefore, I investigated whether a cubed variable would assess this significant variance.

In Step 4, a cubed LMX term was entered and it was positively and significantly related to ostracism and explained an additional 2.6% of the variance. These results support our hypothesis for a curvilinear effect, but indicate that an “S” shape represented the data relative to a more complex relationship. Notably, while the percent of variance increase for the cubed LMX is not of high magnitude, it does align with organizational research investigating nonlinear relationships (Champous & Peters, 1987), and it explains more variance (2.6%) than simple LMX linear term (1.7%). Results are shown in Table 3.

Table 3
Hierarchical Regression Analysis of Linear and Nonlinear LMX Terms Predicting Stress

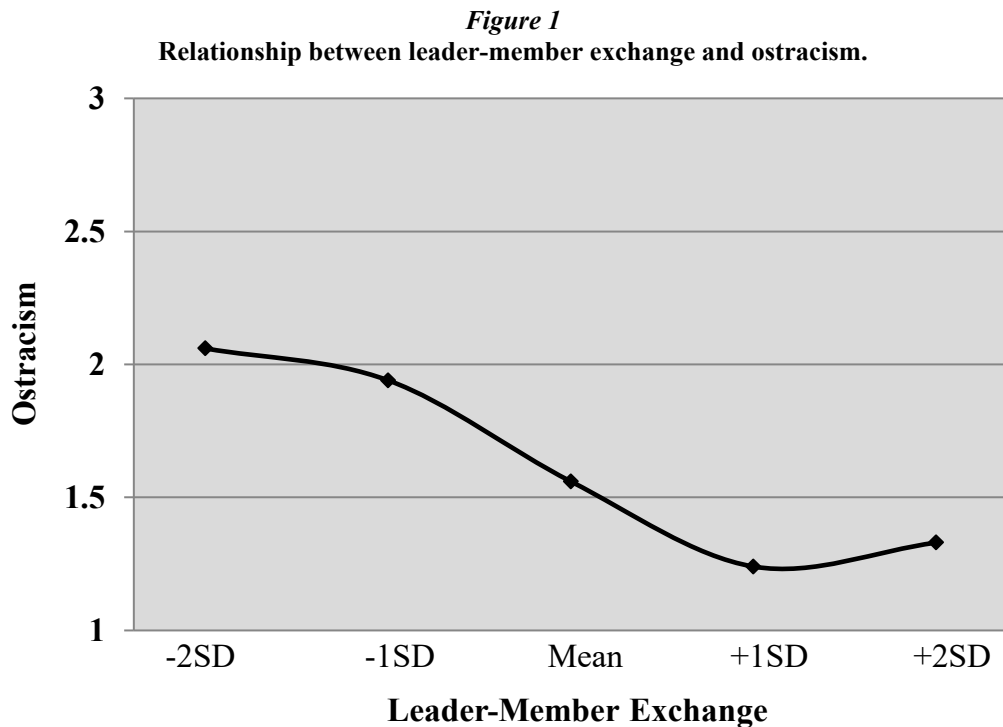
Variable	Model 1	Model 2	Model 3	Model 4
Step 1: Control				
Gender	.252	.254	.243	.228
Race 1	.190	.179	.193	.238*
Race 2	.371*	.370*	.372*	.391*
Organizational tenure	-.080	-.060	-.039	-.046
Job satisfaction	-.096	-.037	-.010	.022
Step 2: Main effect				
LMX		-.085	.533*	2.047*
Step 3: Quadratic effect				
LMX squared			-.068**	-.455*
Step 3: Cubic effect				
LMX cubed				.029*
ΔR^2		.017	.057**	.026*
Adjusted R ²	.073*	.084	.136**	.156*
F	3.063*	2.996**	3.949***	4.037***

Note. Unstandardized betas. LMX = Leader-member exchange

* $p < .05$. ** $p < .01$. *** $p < .001$.

In sum, the positive beta for linear LMX, negative beta for LMX squared, and positive beta for cubed LMX indicated that the curvilinear relationship would be best illustrated as S shapes. I

illustrate the relationships between leader-member exchange and ostracism in Figure 1, following a formula recommended by Cohen and Cohen (1983), who suggest including scale scores calculated by substituting “one high and one low value” (p. 225) as end points. For the low value, I selected two standard deviations below the mean, and for the high value, two standard deviations above the mean.



DISCUSSION

I found a significant curvilinear relationship between LMX and ostracism while controlling for gender, ethnicity, job satisfaction, and organizational tenure. Gaining an understanding of the relationship between LMX and ostracism—a common phenomenon in the workplace—is important as the consequences can be devastating to the targeted individual and consequently affect an organization's bottom line.

I predicted that low- and high-quality LMX relationships might make employees in these relationships targets of ostracism. The results of this study illustrate the relationship between LMX quality and ostracism is non-linear. Although the cubed LMX is visually not as pronounced, there was a significant relationship with ostracism. While the number of respondents that actually fit “high quality” and “high levels of ostracism” was low, this dynamic can be an important factor in organizational functioning. Middle-quality employees that highly value their sense of belonging to their current coworkers may feel discouraged from pursuing high-quality LMX relationships if they believe it could lead to ostracism.

Respondents who rate their LMX relationship to be of the highest quality and subjected to ostracism would be few as I proposed, thus less distinct positive relationship graphically. High-

quality members have empirically exhibited higher levels of organizational commitment, organizational citizenship behavior, and normative commitment (Dulebohn, Bommer, Liden, Brouer, & Ferris 2012). Taken together, it seems reasonable that only a few high-quality members will fall far enough outside the realm of these potentially respected behaviors to suffer ostracism.

Past LMX research has concentrated on the positive outcomes of high-quality relationships and the negative outcomes of low-quality relationships. Specifically, “organizational scholars tend to view strong leader-member exchange (LMX) relationships as a net positive to organization and to the employment relationship” (Rousseau, 2004:267). This study provides some preliminary evidence that high-quality relationships may have ancillary but painful negative outcomes.

Lastly, this study brings a new awareness to the importance of differentiating organizational outcomes beyond phenomena associated with the high and low-quality LMX relationships in recognition of a middle-quality LMX group. From a practical perspective, these three LMX tiers reflect what is prevalent in today’s work units (van Breukelen et al., 2006). Previous, but rare, studies indicate the importance of investigating the middle-quality group (Fairhurst & Chandler, 1989; Graen & Schieman, 1978; Graen & Uhl-Bien, 1995). The curvilinear relationship I found here strongly suggests the relevant existence of this group for organizational phenomena, suggesting further questions should explore the role of the middle-quality group in other areas of LMX research, e.g., outcomes in relationship development, cross-cultural dynamics, and organizational performance.

Strengths and Limitations

This study has several strengths. First, I found a significant curvilinear relationship while controlling for gender, ethnicity, job satisfaction, and organizational tenure. Second, to our knowledge, there are no other studies that have linked LMX and ostracism. Gaining an understanding of the relationship between LMX and ostracism—a common phenomenon in the workplace—is important because the consequences can be devastating to the targeted individual and consequently affect an organization’s bottom line. Third, this study expands beyond the traditional acceptance of high-quality relationships equating to positive outcomes. Repositioning our focus to encompass possible negative outcomes nurtures the advancement of LMX theory. Lastly and just as important, I bring awareness to the middle-quality group. The curvilinear relationship strongly suggests the existence of another group aside from the low-quality and high-quality groups. Therefore, this beckons us to ask, “What is the role of the middle-quality group in other areas of LMX research such as development, cross-cultural, organizational outcomes, etc.?” Evidence of the presence of this middle-quality group presents multiple avenues for future research.

This study has several limitations. First, the study sourced the predictor and criterion variables from the same sample, presenting the potential for common method variance (Podsakoff et al., 2003). I attenuated this effect in the survey through reverse-coding selected questions and maintaining considerable distance between LMX-related and ostracism-related questions. Our analysis indicated CMV was not overwhelming, and the results provide a foundation for launching a more comprehensive investigation that may use network data, observational analysis or experimental procedures to validate the findings here. Second, the use of cross-sectional data limits our ability to establish causation. While LMX is related to ostracism, other reasons may better explain what is driving the relationship. Future studies may want to delve deeper into this possibility. Third, the data was self-reported data, which introduces the possibility of CMV and may have influenced our results (Podsakoff et al., 2003). However, I did conduct tests to

demonstrate that this problem was not pervasive. Another potential weakness is the small sample size. While the sample size is small and may limit the statistical power of the hypotheses tests, these results can guide future research with larger sample sizes. The demographics of the study sample was heavily skewed toward minorities suggesting a limitation. While this may be a limitation as viewed by some, it can also be viewed as a reflection of the demographical changes that are occurring in the U.S. Lastly, social desirability bias may be present even though I informed participants their responses would be confidential and de-identified by an external third party to ensure anonymity. Podsakoff et al. (2003) suggest anonymity as a method to reduce social desirability bias.

Implications and Directions for Future Research

The results of this study suggest a number of avenues for future research. This is the only study I could find that empirically investigate LMX practices and ostracism outcomes together. Models that are more complex could employ SEM or multi-step methods to encompass related factors such as job satisfaction, turnover intent, organizational citizenship behavior, and productivity.

In addition, a longitudinal design would be beneficial in determining whether such LMX-ostracism relationships for both high- and low-quality groups persist with tenure, or are more fleeting. Ostracism may occur only at the onset of a high- or low-quality designation and may attenuate with time.

The curvilinear relationship suggests the presence of a middle-quality group; therefore, researchers going forward should attempt to isolate this group as they do low- and high-quality groups. This study followed the precedent established by Harris and colleagues (2005, 2006) in emphasizing and investigating nonlinear effects, and our results are consistent in illustrating that this methodology is relevant to the LMX perspective. Our theorizing, importantly, was explicitly based on considering conceptually how middle-quality employees would be exposed to less ostracism than their high and low-quality counterparts. As noted above, there is a wide range of organizational outcomes that could be revisited to consider how the existence of a sizable or prominent cadre of middle-quality employees warrants a different understanding of organizational dynamics than theorizing along a simple high/low dichotomy of quality relationships.

Finally, I note that the results revealed that women of ethnic groups other than African American and Caucasian reported higher levels of ostracism. Consistent with previous research on classroom interrelational dynamics (e.g., Jackson, Barth, Powell, & Lochman, 2006), our findings indicate that more work is warranted on cultural antecedents of workplace ostracism (Robinson, et al., 2013).

LMX theory is premised on the importance of improving organizational performance by adopting leadership behaviors tailored to the potential productivity and skills of different employees. As a perspective, it has generally overlooked whether employees commonly agree that high-quality LMX relationships are always the best route for their careers, or whether they may value other features of organizational life more, such as a high sense of belonging. This study begins this conversation on how work relationships outside the leadership dyad may be an integral part of the choices employees make in pursuing and sustaining their LMX quality. Considering this is the only study (or one of few studies) linking LMX to ostracism, there are plenty of research opportunities.

This study was conducted to demonstrate there are exceptions to the norm that high-quality LMX relationships are equivalent to positive outcomes. A curvilinear relationship is hypothesized

and supported suggesting members in low- and high-quality LMX relationships are subjected to more ostracism, a negative organizational outcome, than members in middle-quality relationships.

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THE ECONOMICS OF TRUST IN BUYER-SELLER RELATIONSHIPS: A TRANSACTION COST PERSPECTIVE

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ABSTRACT

What is the relationship between economics and trust in purchasing relationships? To address this important research question, we use transaction cost analysis (TCA) to evaluate the impact that relationship specific assets, uncertainty, and frequency (e.g., the transaction cost dimensions) have on the level of trust between buying and selling firms. This proposed framework was tested using a sample of established buyer-seller relationships. The results support our proposed framework and the impact that the three transaction cost dimensions have on trust. Shortly stated, our findings suggest that economic as well as social factors should be considered in future trust studies.

INTRODUCTION

Relationship researchers (Anderson & Narus, 1984; 1990; Dwyer et al., 1987; Lambe, et al., 2000; Nevin, 1995) have long recognized the impact that trust plays in the achievement of strategic objectives and ultimately, the performance of buyer-seller business relationships. Research (Anderson & Weitz, 1989; Doney & Cannon, 1997; Dwyer et al., 1987; Ganesan, 1994; Geyskens et al., 1999; Morgan & Hunt, 1994) suggests that the degree to which both parties trust each other plays a major role in the quality of the relationship that exists between them. For this reason, interorganizational trust is an important research topic that deserves continued academic consideration. In this paper, we use transaction cost analysis (TCA) (Williamson, 1975; 1985; 1996) to better understand the role that various economic factors play in the level of trust between buying and selling firms.

TCA has been used in much of the relationship literature to study the governance decisions of buying, and to a lesser extent, selling firms (O'Donnell, 2009). In particular, TCA identifies three factors, relationship specific investments (RSAs), uncertainty, and frequency that impact the governance mechanisms used by organizations to control the opportunistic behaviors of their respective exchange partners (Williamson, 1991). These mechanisms reduce the relationship's economic efficiency by generating higher transaction costs. As a result, TCA, as it has been applied in much of the current literature, is focused on how organizations may protect themselves from the potential opportunism of their exchange partner (Rindfleisch & Heide, 1997).

Consistent with TCA's emphasis on protection and control, prior TCA-based research (Wathne & Heide, 2000; Jap & Ganesan, 2000; Rokkan, et al., 2003; Wuyts & Geyskens, 2005; Gundlach & Murphy, 1993; Heide, et al., 2007; Lusch & Brown, 1996; Wathne & Heide, 2004) is focused on the effectiveness of various governance mechanisms such as contracts, supplier

relationship specific investments, and supplier qualification in different relationship settings. However, in addition to these more “formal” mechanisms, relational mechanisms have also been proposed to reduce opportunism and encourage cooperative behaviors. Since trust sits at the heart of relational governance (Lambe et al., 2001) we will use it as our dependent variable.

In this study, we extend the current literature by using TCA to study trust (rather than control) in buyer-seller relationships. More specifically, we evaluate the impact that RSAs, uncertainty, and frequency (e.g., the three transaction cost dimensions) have on the level of trust in buyer-seller relationships. Much of the TCA-based relationship research to date has largely focused on the effect that the RSA and uncertainty dimensions have on relationship governance leaving frequency largely unexplored (David & Han, 2004; O'Donnell, 2009). Thus, this study represents an important contribution to the extant literature by developing and testing the impact that all three transaction cost dimensions have on buyer-seller trust in one model.

BACKGROUND AND HYPOTHESES

Trust

Trust is a construct that has been used in psychology, sociology, management, and marketing to address the degree to which relationship participants behave in a manner consistent with the best interest of their respective partner (Duffy, 2008; Wilson, 1995). Morgan and Hunt (1994) suggest that trust is the cornerstone of successful relationships. Prior research (Anderson & Narus, 1990; Anderson & Weitz, 1989; Doney & Cannon, 1997; Dwyer et al. 1987; Ganesan, 1994; Geyskens et al., 1999; Hewett et al., 2002; Hultman & Axelsson, 2007; Morgan & Hunt, 1994; Mukherji & Francis, 2008; Seppanen et al., 2007) suggests that trust encourages relationship enhancing behaviors such as cooperation, shared values, commitment, and satisfaction and discourages relationship detracting behaviors such as conflict, uncertainty, and opportunistic behavior. Because of the important role that trust plays in successful buyer-seller relationships (Doney & Cannon, 1997; Hewett et al., 2002; Morgan & Hunt, 1994; Wilson, 1995), we selected it as our dependent variable.

In the organizational relationship area, Sarkar, Echambadi, Cavusgil and Aulakh (2001, p 362) define trust as “the level of confidence shared by the parties regarding each other’s integrity.” This “mutual” definition of trust addresses both parties’ perspective rather than the more traditional approach of examining trust from the perspective of only one of the parties. In this study, we use Sarkar’s et al. definition because it is more relevant in a relationship setting. In particular, we evaluate the degree to which the parties: 1) are honest and truthful with each other; 2) treat each other fairly and justly; and 3) find it necessary to be cautious when dealing with each other. Based on our review of the trust literature, we felt that these three factors capture the essence of trust between buying and selling firms.

TCA and Trust

Transaction cost analysis (TCA) is a framework that has been used extensively in the marketing and management disciplines to model the governance of buyer-seller relationships (Rindfleisch & Heide, 1997; Geyskens et al., 2006). TCA is built on two behavioral assumptions, bounded rationality and opportunistic behavior (Williamson, 1975; 1985; 1996).

The first, bounded rationality, assumes that humans have limited information processing capabilities and as such, are unable to develop complete formal and informal contracts (Buvik & John, 2000; Radner, 1968). This results in incomplete contracting which provides either or both parties opportunities to take advantage of contractual gaps to further their own position. The second assumption, opportunistic behavior, compounds this threat by assuming that there are individuals who may resort to deception to further their own self-interest (Williamson, 1985). Unfortunately, it is difficult to identify partners who are inclined to act in an opportunistic manner forcing both parties to develop governance mechanisms that discourage such behaviors resulting in the creation of transaction costs (Dyer, 1997; North, 1990). These costs have the effect of reducing exchange efficiency and over many transactions, the performance of the relationship.

The behavioral assumptions of bounded rationality and opportunism are operationalized in TCA by three sources of transaction costs (Williamson, 1975; 1985; 1996); relationship specific assets (RSAs), uncertainty, and frequency. Each of these factors is assumed to impact the governance decisions of both parties in a relationship setting. Relationship specific assets (RSAs) are specialized investments in relationship assets that have limited transferability to other alternative uses without incurring substantial reduction in their value (Williamson, 1996). For this reason, when a party makes an investment in RSAs, they are essentially locking themselves in a particular relationship making them susceptible to being taken advantage of by their partner (Williamson, 1996; Wathne & Heide, 2000; Besanko, et al., 2000).

The second factor, uncertainty, involves how much each of the parties know about the other and then, given what they know about that party, how likely they are to behave in an opportunistic behavior if given an opportunity. Uncertainty is reduced when both parties know a lot about each other and as such, are better able to predict each other's behaviors. In addition to their exchange partner, the environment itself, or more specifically, the volatility of the environment faced by the parties represents an additional source of uncertainty by creating gaps in contractual agreements that could be used by either or both parties to enhance their own self-interest (Buvik & John, 2000; Cannon, et al. 2000). The final factor, frequency, involves the number and size of the transactions that both parties expect to occur between them in the future. Opportunistic behaviors are more likely to occur in relationships involving single rather than multiple transactions.

In the relationship literature, TCA has been primarily used to predict the governance mechanisms that exchange partners may use when facing one or more of the above sources of transaction costs (Rindfleisch & Heide, 1997; O'Donnell, 2009). More specifically, prior research has provided important insights into the effectiveness of various governance mechanisms in terms of controlling opportunism and improving relationship performance. For example, investments in RSAs (Wathne & Heide, 2000; Jap & Ganesan, 2000; Rokkan, et al., 2003; Buvik & Anderson, 2002), explicit contracts (Wuyts & Geyskens, 2005; Young & Wilkinson, 1989; Gundlach & Murphy, 1993; Jap & Ganesan, 2000; Heide, et al., 2007; Cannon, et al., 2000; Buvik & John, 2000; Heide, 2003; Lusch & Brown, 1996), relational norms (Dwyer et al., 1987; Heide & John, 1992; Rokkan et al., 2003; Heide & John, 1992; Gundlach et al., 1995; Noordeweir et al., 1990), monitoring (Heide et al., 2007), and partner qualification programs (Stump & Heide, 1996; Wathne & Heide, 2004) have received considerable academic attention in terms of their ability to govern buyer-seller relationships and the individual behaviors of the parties. Thus, based on our review of the relationship literature, much of the

TCA-based research has been focused on the impact that these sources, more specifically, the RSA and uncertainty have on the control of buyer-seller relationships (O'Donnell, 2009).

In this paper, we would like to shift the TCA paradigm from that of examining the effectiveness of different formal mechanisms (e.g., contracts, supplier RSAs, supplier qualification, and so forth) in relationship governance to that of less-formal, more relational ones (Lambe et al., 2001). Prior research supports this approach (Cannon et al., 2000; Heide & John, 1992; Heide et al., 2007) with the strength of these mechanisms being evaluated by the level of trust that exists between the two parties. For this reason, we evaluate the impact that RSAs, uncertainty, and frequency have on trust in buyer-seller relationships. In so doing, this study provides insights into the factors that enhance trust leading to lower transaction costs and higher relationship efficiencies. The hypotheses associated with each of these transaction cost dimensions are identified as follows.

Relationship Specific Assets (RSAs). Two specific aspects of RSAs are examined in this study: 1) the degree to which the parties' capabilities complement each other (Complementary Capabilities) and 2) the degree to which both parties have made substantial investments in RSAs (Mutual Investment Level).

A firm's capabilities refer to its knowledge of and ability to perform key activities such as brand development, product design, manufacturing, and technical support (Grant, 1998). Consistent with the resource-based view (RBV) of strategy (Barney, 1991; 2001; Wernerfelt, 1984), a firm's success is largely determined by the unique capabilities it possesses. Moreover, the more the firms' capabilities complement each other, the greater their ability to realize mutually beneficial outcomes through their joint efforts (Jap, 1999). For example, if one party possesses superior skills in developing and marketing new products and the other party has a well-established distribution network in a particular target market, this would dramatically enhance their ability to successfully introduce a new product in that target market. Since these outcomes could be lost if either or both parties were to attempt to take advantage of the other, this will discourage opportunism and encourage cooperative behaviors resulting in higher levels of trust.

H1 Trust is positively related to the degree to which the capabilities of the buying firm and the selling firm complement each other.

Relationship specific investments (RSIs) are investments that have considerable value in a particular relationship but have dramatically lower value when used in other relationships (Rindfleisch & Heide, 1997). For this reason, RSIs tend to "lock" the investing party into a particular relationship due to their limited transferability making it susceptible to being exploited by its partner (Bensanko, et al., 2000; Wathne & Heide, 2000). However, when both parties have made substantial RSIs (e.g., mutual RSIs), a state of mutual dependence is created that discourages opportunism from both parties (Jap & Ganesan, 2000; Stump & Heide, 1996; Stump & Joshi, 1998; Wathne et al., 2001; Gundlach et al., 1995) and encourages a closer relationship between them (Heide & John, 1992) resulting in higher levels of trust (Heide, 1994; Lusch & Brown, 1996).

H2 Trust is positively related to the degree to which both the buying firm and the selling firm have made substantial investments that are specific to the relationship.

Uncertainty. Two types of uncertainty will be examined regarding their impact on trust: 1) environmental dynamism and 2) mutual information level. Environmental dynamism involves changes in the environment that occur frequently and are difficult to predict (Achrol & Stern, 1988). Environmental changes may represent both an opportunity and a threat to the relationship. Prior research suggests (Buvik & John, 2000; Joshi & Campbell, 2003) that, in establish buyer-seller relationships (which is the case for the relationships used in this study), both parties are expected to address environmental changes by coordinating their activities and by working more closely together (Jap, 1999). Dwyer and Welsh's (1985) research supports this position finding that channel members rely more on collaborative relationship structures when faced with rapidly changing environments to acquire the flexibility needed to respond to those changes (Lawrence & Lorsch, 1967; Mahoney & Pandian, 1992; Thompson, 1967; Wernerfelt & Aneel, 1987). Therefore, when faced with higher levels of environmental dynamism, both parties are expected to work more closely together to create the flexibility needed to adapt to environmental changes (Jap, 1999; Norris & McNielly, 1995) resulting in higher levels of trust.

H3 Trust is positively related to the level of environmental volatility faced by buying and selling firms.

When the parties know a lot about each other (e.g., a high level of mutual information), they are better able to predict their respective partner's behavior under different situations resulting in higher levels of trust. Moreover, as the parties continue to share relationship specific information with each other, increasing levels of inter-party transparency should enable them to better identify the opportunistic behaviors of their respective partner (Wathne & Heide, 2000). Another benefit of this increased transparency is that it enhances the parties' ability to identify ways to reduce process redundancies and to better identify and capitalize on mutually beneficial process and market opportunities. For example, through a mutual understanding of each other's production systems, both parties will be better able to identify ways to improve manufacturing efficiencies and product quality. Furthermore, they will be better able to identify ways to reduce process redundancies including the potential that either party could make decisions that unknowingly has a negative effect on its partner. Since these benefits could be lost if either or both parties were to behave in a self-interested manner reducing the potential for opportunism. As a result, we hypothesize that when the parties know a lot about each other, they should trust each other more.

H4 Trust is positively related to the degree to which both the buying firm and the selling firm are knowledgeable about each other that is relevant to the relationship.

Frequency. Frequency involves the number and size of the transactions that both parties expect to occur between them (Pilling et al., 1994). If both parties expect that their relationship will involve multiple transactions over an extended period of time, they are less likely to behave opportunistically and more likely to exhibit cooperate behaviors (Heide & Miner, 1992) resulting in higher trust. In this study, we examine two specific aspects of frequency: 1) exchange volume alignment and 2) future growth expectations.

Exchange volume alignment involves the degree to which the parties have similar expectations regarding the number and size of the transactions that will occur between them. If the firms have similar exchange volume expectations, the parties are more likely to share similar mindsets regarding the future of the relationship enabling them to predict their partner's responses resulting in higher levels of trust.

- H5 Trust is positively related to the degree to which the exchange volume expectations of the buying firm and the selling firm are aligned.*

Future growth expectations involve the degree to which both parties expect that their relationship will continue to grow. When both parties expect that the scope of their relationship will continue to expand in the future, they are more likely to work together to realize mutually beneficial outcomes (Heide & Miner, 1992; Noordeweir et al., 1990). Since these benefits could be lost if either or both of the parties were to behave opportunistically, such mutually shared expectations regarding the future of the relationship should encourage cooperative behaviors (Buvik, 2002; Dyer & Singh, 1998) resulting in higher levels of trust.

- H6 Trust is positively related to the future growth expectations of buying and selling firms.*

METHODS AND FINDINGS

To test our hypotheses, we contacted local chapter presidents of the National Association of Purchasing Management (NAPM) and asked for their chapter's support for our study. Five chapters located in major metropolitan centers located in the northeastern U.S.A. agreed to endorse our research and allowed us to solicit the participation of their members by distributing questionnaires at their monthly chapter meetings.

Although we initially wanted to use knowledgeable informants from both firms, informant anonymity concerns such as those experienced by Lambe, Spekman, and Hunt (2002) prevented us from collecting relationship data from suppliers. Therefore, similar to a number of studies (Jap & Ganesan, 2000; Lambe et al., 2002; Sarkar et al., 2001), we used the buyer's perceptions of the relationship. Prior studies have found that purchasing agents and managers provide valid and reliable responses (Cannon et al., 2000; Cannon & Perreault, 1999; Heide & John, 1990; Stump & Heide, 1996) regarding their firm's supplier relationships because of their intimate knowledge of and close involvement in their firm's supplier relationships. The members of NAPM are especially ideal informants because of their strong professional interest and training in the purchasing discipline and the major role that they play in their firms' supplier decisions.

To assess each respondent's ability to provide valid information, we asked respondents to rate on a Likert scale (1 = not very knowledgeable and 7 = very knowledgeable) their knowledge of the supplier relationship that they had reported on. Similar to Lambe et al. (2002), we eliminated informants who rated themselves at a level of 5 or less. For these reasons, we concluded that the relationship data reported by our respondents was appropriate for this study.

Survey Instrument and Sample

In the questionnaire we asked informants to provide information regarding a relationship that existed between their firm and the supplier of a key product of their firm's primary business. This was done to reduce the likelihood that the sample would be composed of an excessive number of relationships involving incidental purchases. The survey underwent two rounds of pretesting. In the first round, three buyers of a local automotive specialty firm were used to evaluate the clarity of scale items and the overall organization of the survey instrument. In the second round, four members of two local NAPM chapters were provided copies of the revised

survey and asked to complete them. These individuals were later interviewed to identify areas of confusion as well as ways to improve the survey's quality and clarity. We used their comments and recommendations to further refine the survey. The survey instrument was also evaluated throughout the data collection process by asking informants to provide feedback regarding the clarity of scale items and instructions; no major problems were identified.

Survey packets that included a cover letter, a self-addressed postage paid envelope, and a link to an on-line version of the survey were distributed at the meetings of our focal NAPM local chapters. The on-line survey tool used to administer and track responses was Questionpro (www.questionpro.com). A reminder was provided at subsequent meetings and in the monthly newsletters for each chapter. Overall, 197 surveys were distributed of which 49 paper and 31 on-line survey responses were received (i.e., a total of 80 survey responses) for a response rate of 40.61 percent. No significant differences were found between the paper and on-line responses for any of the items used in this study. Of the surveys that were completed, four were later removed for excessive missing data resulting in a final sample of 76 or a final response rate of 38.56 percent.

The average age of the relationships was 13 years (e.g., our sample mostly consisted of established buyer-seller relationships). The average annual sales of the buying firms in 2004 were \$75 million with a range of less than \$1 million to more than \$1 billion. Relative to firm size, 48 percent of the buying firms were small (less than \$100 million in annual sales), 26 percent medium (annual sales of \$101 million to \$1 billion) and 26 percent large (annual sales exceeding \$1 billion). The firms in our sample represented a wide range of industries and product classifications with 26 percent providing consumer products and services, 63 percent industrial products and services, and 11 percent distributors.

Measurement of Constructs

We focused on two key aspects of RSAs: complementary capabilities and mutual investments. The complementarity of the buying and selling firms' capabilities was measured by a four-item, Likert scale (1 = "strongly disagree" and 7 = "strongly agree") modified from Jap (1999) that evaluated the perceived degree to which the firms possess complementary strengths and abilities that enable them to realize outcomes that are beyond each firm's individual reach. This variable was computed as the sum of the individual item responses. The scale exhibited good internal consistency with a Cronbach's alpha value of .83 (Nunnally, 1978; Peterson, 1994).

Mutual investments involve the degree to which the firms had made investments in RSAs. In particular, mutual investments were measured by a two item, Likert scale modified from Rokkan et al. (2003) that asked informants to rate the degree to which both parties had made substantial investments of time and resources to develop the relationship. Mutual investments were computed as the sum of the individual item responses. Overall, the scale exhibited good internal consistency with a split-half reliability value of .85.

Two aspects of uncertainty were examined in this study, environmental uncertainty and mutual information level. Environmental uncertainty involves the degree to which the firms' environment is constantly changing and as such, difficult to predict (Archol & Stern, 1988). Informants were asked to rate on a Likert scale their level of agreement/disagreement with three statements modified from Jap (1999) regarding the volatility of the market demands, practices,

and conditions under which the focal relationship operates. Environmental dynamism was computed as the sum of the individual item responses. The scale exhibited good internal consistency with a Cronbach's alpha of .87 (Nunnally, 1978; Peterson, 1994). Mutual information level evaluates the degree to which both firms were perceived to know a lot about each other that was relevant to the relationship. This construct was evaluated by a one item, Likert scale.

Frequency involves the number and amounts of the economic transactions that the firms expect to occur between them in the future. In this study, frequency was limited to exchange volume alignment and future growth expectations. Exchange volume alignment evaluates the degree to which the parties are perceived to have similar expectations regarding the amounts of the purchases that will occur between them in the next year. In contrast, future growth expectations evaluates the degree to which the firms expect that the number of exchange transactions between them will increase in the future. Both constructs were measured using single item, Likert scales.

Trust, our dependent variable, was measured by a four item, Likert scale modified from Sarkar et al. (2001) that evaluated the perceived level of integrity, fairness, and dependability of the firms participating in the relationship. Trust was computed as the sum of the individual item responses. The scale exhibited good internal consistency with a Cronbach's alpha value of .84 (Nunnally, 1978; Peterson, 1994). The specific items used in our scales are specified in the appendix of this paper.

Analysis

To evaluate the potential for multicollinearity, we initially examined the correlations among our variables (Hair et al., 1998). A review of the correlations shown in Table 1 revealed that no unusually large correlations existed between any of the independent variables. As an additional test of multicollinearity, variance inflation factors (VIFs) were calculated for each independent variable. The largest variance inflation factor was 2.040 (for *Mutual Investment Level*), which was smaller than the maximum limit of 10 identified by Neter, Kutner, Nachtsheim, and Wasserman (1996). As a result, multicollinearity did not appear to be a problem.

Table 1
MEANS, STANDARD DEVIATIONS, AND CORRELATION MATRIX

Variable	1	2	3	4	5	6	7
Mean	5.25	5.39	5.51	5.46	5.41	5.07	5.06
Standard Deviation	1.08	0.87	1.12	1.16	1.13	1.19	1.41
1. Trust	1.00						
2. Complementary Capabilities	.56	1.00					
3. Mutual Investment Level	.49	.52	1.00				
4. Environmental Dynamism	.05	.36	.27	1.00			
5. Mutual Information Level	.59	.45	.66	.24	1.00		
6. Exchange Volume Alignment	.56	.57	.48	.22	.50	1.00	
7. Future Growth Expectations	.09	.26	.19	.08	.13	.17	1.00

Correlations greater than 0.19 are significant at $p < .05$ for $N=76$.

We used hierarchical regression models to evaluate the relationship between trust and the three transaction cost dimensions (e.g., the RSA, uncertainty, and frequency) examined in this study. This enabled us to evaluate the marginal effects that the three dimensions, as evaluated by our TCA antecedent variables (e.g., complementary capabilities, mutual investment level, environmental dynamism, mutual information level, exchange volume alignment, and future growth expectations) have on trust. Moreover, hierarchical regression allowed us to examine the statistical significance that each antecedent variable has on trust as well the explanatory power of the overall model.

FINDINGS

The results of the hierarchical regression analysis are shown in Table 2. The analysis used in this study consisted of four models. Model 1 evaluated the impact that the RSA dimension (as evaluated by complementary capabilities and mutual investment level) has on trust. Model 1 explained about 37 percent ($R\text{-squared} = .368$; $\text{adjusted } R\text{-squared} = .351$; $p < .01$) of the variance in trust which suggests that the RSA dimension is significantly related to buyer-seller relationship trust.

Table 2
HIERARCHICAL REGRESSION – THE INFLUENCE OF
TCA ANTECEDENT VARIABLES ON TRUST

TCA Variables		Trust		
Relationship Specific Asset (RSA)				
H1: Complementary Capabilities	.41** (3.75)	.42** (4.02)	.29* (2.49)	.34** (3.05)
H2: Mutual Investment Level	.29** (2.64)	.07 (.59)	.21 (1.97)	.05 (.46)
Uncertainty				
H3: Environmental Dynamism		-.22* (-2.42)		-.22* (-2.45)
H4: Mutual Information Level		.41** (3.55)		.34** (2.99)
Frequency				
H5: Exchange Volume Alignment			.31** (2.75)	.23* (2.17)
H6: Future Growth Expectations			-.08 (-.85)	-.07 (-.83)
Change in R-squared		.126	.065	.148
F-value for change in R-squared		8.83	4.10	12.12
F-value significance		.000	.021	.000
R-Squared	.368**	.494**	.434**	.531**
Adjusted R-Squared	.351	.466	.402	.490

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

N=76 in all models. For each variable, the reported values are standardized betas with corresponding t-values in parentheses (except as noted).

In Model 2, the uncertainty dimension (as evaluated by environmental dynamism and mutual information level) was added to model 1 to evaluate uncertainty's impact on trust. The R-squared change (.126) over Model 1 (F-value = 8.83; $p < .01$) supported our assertion that uncertainty is significantly related to trust. Interestingly, when the uncertainty dimension (more specifically, mutual information level) was added to model 1, the effect size of mutual information level decreased from .29 ($p < .01$) to .07 (not significant). This suggests, consistent with the Social Exchange Theory (SET) literature, that social investments may be more important than economic investments in establishing trust in buyer-seller relationships.

In Model 3, the frequency dimension (as evaluated by exchange volume alignment and future growth expectations) was added to model 1 to evaluate frequency's impact on trust. The R-squared change (.065) over Model 1 (F-value = 4.10; $p < .05$) supported our assertion that frequency is also significantly related to trust.

Finally, Model 4 consists of all three transaction cost dimensions (e.g., the complete model). Model 4 explained 53 percent (R-squared = .531; adjusted R-squared = .490; $p < .01$) of the variance in trust. In hypothesis H1, it was predicted that the *complementary capabilities* of the firms would be positively related to *trust*. This hypothesis was supported ($b = .34$, $p < .01$). In contrast, the positive relationship hypothesized to exist between the level of the mutual RSAs (e.g., *mutual investment level*) made by the firms and *trust* (hypothesis H2) was not supported.

In hypothesis H3, it was predicted that *environmental dynamism* would be positively related to *trust*. Though the relationship between environmental dynamism and trust was significant ($p < .05$), the direction of this relationship was negative ($b = -.22$) rather than positive (as hypothesized). In contrast, consistent with hypothesis H4, *mutual information level* was

positively related to *trust* ($b = .41, p < .01$). Finally, it was predicted in hypothesis H5 that *exchange volume alignment* would be positively related to *trust*. This hypothesis was supported ($b = .23, p < .05$). In contrast, the positive relationship hypothesized to exist between the *future growth expectations* of the firms and *trust* (hypothesis H6) was not supported.

DISCUSSION

In this study, we examined the impact that the three TCA dimensions (e.g., RSAs, uncertainty, and frequency) as evaluated by complementary capabilities, mutual investment level, environmental dynamism, mutual information level, exchange volume alignment, and future growth expectations have on the level of trust between buying and selling firms in established relationships. Our results suggests that in addition to providing valuable insights into the governance decision of buying and selling firms TCA also provides important insights about trust. In fact, based on this analysis, all three TCA dimensions were found to be significantly related to trust in buyer-seller relationships.

Relative to the RSA dimension, we hypothesized and found that complementary capabilities have a positive impact on buyer-seller trust. This suggests that trusting buyer-seller relationships are built upon a foundation of complementary capabilities. Though we originally predicted that mutual RSIs would have had a positive impact on trust, this was not supported in our study. One potential explanation for this result is that we did not consider the firms' relative sizes in our analysis. For example, if both parties make similar sized RSIs but one of the parties is substantially larger than the other, the larger party would still consider itself in a dominant position relative to the smaller and as such, might be more inclined to use this advantage to further their own position in the relationship. Testing this alternative explanation represents an interesting area for future research.

With respect to uncertainty, environmental dynamism was found, contrary to hypothesis H3, to be negatively related to trust. This suggests that under conditions of high environmental volatility, gaps may be created in any formal or informal agreements between the parties increasing the likelihood that one or both of them could potentially use to further their own self-interest over the best interest of their exchange partner. As a result, both parties would be less trusting of each other. For this reason, other mechanisms may be needed to mitigate this potential in volatile environments. For instance, information sharing mechanisms leading to increased levels of transparency would offset inter-party opportunism by not allowing it to go unnoticed. In contrast, the degree to which the parties know a lot about each other (e.g., mutual information level) has a positive impact on trust. This suggests that, when the goal is to build a trusting relationship, both parties should be open to sharing information about themselves while also attempting to identify ways to learn as much about each other. This may involve sharing information regarding short-term and long-term goals, production processes, production costs, and so forth.

Finally, with respect to frequency, the degree to which the parties have similar expectations regarding the volume of transactions that will occur between them will have a positive impact on trust. When both parties have similar exchange volume expectations, they are in a better position to predict each other's behaviors resulting in higher levels of trust. However, when these expectations are not aligned, the potential for opportunism on the part of the party with lower transaction expectations is greater. Realizing this, the party with higher exchange volume expectations may attempt to protect itself which may be perceived as untrusting behavior

by the other. Both of these effects reduce relationship trust. Surprisingly, the future growth expectations of the parties had almost no effect on trust.

Limitations

A few limitations should be noted in this study. First, our sample was fairly small ($n = 76$). Though we would have preferred a larger sample, the fact that we had significant results with such a small sample has more to do with the large effect sizes of our independent variables rather than the smaller standard errors associated with large samples. Therefore, we expect that the significance of our independent variables should increase as the sample size is increased.

Second, the relationship data used in this study was obtained from purchasing managers and agents in a cross-sectional manner. Though this approach is consistent with previous relationship studies (Jap & Ganesan, 2000; Lambe et al., 2002; Sarkar et al., 2001), additional insights may have been found by collecting data from both the buying and selling firms in a longitudinal manner. Third, though we would have preferred to use multi-item scales, we used single-item scales for mutual information level, exchange volume alignment, and future growth expectations because of our inability at the time to find well-established scales for these constructs. Hopefully, scales for these constructs will be developed and validated in future studies. Finally, though our model explains over 53 percent of the total variance in buyer-seller trust, a great deal of the variance remains to be identified and studied by researchers.

In closing, this study represents an important contribution to the relationship literature by using TCA, more specifically, all three transaction cost dimensions, to extend our understanding of buyer-seller relationship trust. This study supports our assertion that TCA provides important insights about trust. In fact, all three transaction cost dimensions (more specifically, complementary capabilities, environmental dynamism, mutual information level, and exchange volume alignment) were found to impact trust. Moreover, our analysis suggests that complementary capabilities (an economic factor) and mutual information level (a social factor) are two primary drivers of trust in buyer-seller relationships. In short, this study indicates that economic as well as social factors should be considered in future trust studies.

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APPENDIX

Trust* (Cronbach's alpha = .84)

1. Both of us are honest and truthful with each other
2. We treat each other fairly and justly
3. Both of us are cautious in dealing with each other (Reverse coded)
4. We deal with each other in a trustworthy manner

Complementary Capabilities* (Cronbach's alpha = .83)

1. We have separate abilities that, when combined together, enable us to achieve goals beyond our individual reach
2. We have complementary strengths that are useful to this relationship
3. We contribute different capabilities to this relationship
4. Both of us contribute capabilities that are valuable to this relationship

Mutual Investment Level* (Split-half reliability = .85)

1. We (both firms) have made significant investments dedicated to this relationship
2. Both of us have made substantial investments of time and resources to develop this relationship

Environmental Dynamism* (Cronbach's alpha = .87)

1. The market demands on us are constantly changing
2. The market practices in our industry are constantly changing
3. The market conditions that we face are constantly changing

Mutual Information Level*

Overall, we (both firms) presently know a lot about each other that is relevant to this relationship

Exchange Volume Alignment*

We have similar expectations regarding the amounts involved with the purchase transactions that will occur between us in the next year

Future Growth Expectations*

We both expect that the number of purchase transactions between us will increase in the future

* 7-point Likert scale anchored by 1= "strongly disagree" to 7 = "strongly agree"

MORTALITY SALIENCE AND PRODUCT EVALUATION: ROLE OF SELF VERSUS LOVED ONES

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ABSTRACT

Marketing communications can activate a consumer's thought about his own death, or the death of his loved one. Although past research has largely focused on thoughts about one's own death, which has been termed mortality salience (Greenberg, Solomon, and Pyszczynski 1997), recent studies have shown that there are two types of mortality salience, namely mortality salience of self (MSS) and mortality salience of a loved one (MSLO) which may have different impact on certain consumer behaviors (Wang 2015). In this research, we specifically examine the effects of MSS and MSLO on two types of product choices, namely social status choice and social experience choice. Based on a need salience mechanism, we discover in four studies that MSS individuals prefer social status choice options over social experience choice options; whereas MSLO individuals prefer social experience choice options over social status choice options. Moreover, these effects are more pronounced among MSS individuals high in independent self-construal, and MSLO individuals high in interdependent self-construal. This research contributes to the mortality salience literature by proposing a new mediating mechanism based on need salience which predicts the divergent effects of MSS and MSLO on type of choice, and identifying two new moderating variables, namely independent self-construal and interdependent self-construal which can modify the effect of MSS versus MSLO on type of choice.

INTRODUCTION

Marketing communications can activate a consumer's thought about his own death, or the death of his loved one. For example, while watching a television ad for the *Heart & Stroke Foundation*, an individual may become increasingly aware of his own mortality if he has a heart condition, or he may become increasingly aware of the possible death of a loved one if the person has chronic heart disease. How the different death-related thoughts influence consumers' follow-up behaviour has not been fully disclosed in consumer studies. Past research has largely focused on thoughts about one's own death, which has been termed mortality salience (Greenberg, Solomon, and Pyszczynski 1997). Studies have shown that mortality salience may have two distinct types—namely mortality salience of self (MSS) and mortality salience of a loved one (MSLO), which can have different effect on consumer behavior (Wang 2015). In this research, we specifically examine the effects of MSS and MSLO on two types of product choices, namely social status choice and social experience choice. Here, social status choice refers to a choice whereby consumers' primary intention is to gain social status, whereas social experience choice refers to a choice whereby consumers' primary intention is to obtain social experience (Van Boven and Gilovich 2003).

We hypothesize and find that MSS individuals are more likely to favour social status choice options over social experience choice options; in contrast, MSLO individuals are more likely to prefer social experience choice options over social status choice options. We argue that a need salience mechanism may underlay these effects, such that preference for social status choice options are driven by the need for self-esteem bolstering, while preference for social experience choice options are driven by the need for social connection. Based on this mechanism, we propose that individuals' self-construal moderate the effect of type of mortality salience on type of choice. We test hypotheses in four studies, which also assess robustness of results across different product categories and measures of product evaluation.

THEORETICAL BACKGROUND

Mortality salience has been defined as an individual's awareness of his or her eventual death (Becker 1973; Greenberg et al. 1997). It has been researched to considerable extent in psychology, sociology, anthropology, and to a lesser extent, in consumer behaviour (Burke, Marten and Faucher 2010). Two underlying mechanisms have been proposed in past research to explain the effects of mortality salience, namely cultural worldview validation and self-esteem bolstering (Greenberg et al., 1997). Cultural worldview consists of shared beliefs about the nature of reality that provide meaningful explanations of life and the world (Greenberg, et al. 1997). Worldview validation suggests that when mortality is salient, individuals are more likely to express cultural values and engage in culturally prescribed behavior to buffer the fear of death (Greenberg et al. 1990). Self-esteem refers to a person's overall evaluation or appraisal of his or her own worth (Hewitt 2009, 217-224). The mortality salience literature suggests that people are motivated to deal with death concerns by bolstering self-esteem from sources such as material possessions, physical appearance, and risky behaviors (Greenberg et al. 1990, Arndt et al. 2004). Notably, mortality salience has largely been considered as a single construct representing awareness of one's own death. Recent research has shown that there may be two distinct types of mortality salience, namely mortality salience of self (MSS) and mortality salience of a loved one (MSLO) which lead to different effects on certain consumption behaviors (Wang 2014b).

Type of Mortality Salience

In consistent with past research (Wang 2014a), we define type of mortality salience in terms of the person whose mortality is salient, the person being either the self or a loved one. Thus, mortality salience of self (MSS) refers to the awareness of one's own death and mortality salience of a loved one (MSLO) refers to the awareness of the death of a loved one. Here, loved ones refer to one's spouse, children, parents, siblings and other important family members (Harvey 1998).

Past research on mortality salience has largely focused on MSS, with only a few studies explored the effect of MSLO (Greenberg et al. 1994; Bonsu and Belk 2003). In these latter studies, it was assumed that MSLO would serve as a reminder of an individual's own mortality (Taubman-Ben-Ari and Katz-Ben-Ami 2008; Mikulincer, Florian and Hirschberger, 2003). As a result, past research has assumed that MSLO and MSS influence consumer behaviour in a similar manner. Consistent with this assumption, Greenberg et al. (1994) found that both MSS and MSLO increase

an individual's defense of their cultural worldviews. Similarly, Bonsu and Belk (2003) found that like their MSS counterparts, MSLO consumers also tend to engage in conspicuous consumption. Although it is possible that MSS and MSLO sometimes have similar effects on judgment and choice, past research has shown that MSS and MSLO can also have divergent effects on certain consumer behavior such as materialistic consumption (Wang 2014b). In this research, we further compare the effect of MSS and MSLO on two specific types of choice, namely social status choice and social experience choice.

Type of Choice

We define type of choice in terms of the purpose or goal underlying choice, and differentiate between two types of choice: social status choice and social experience choice. The main goal of social status choice is to signal position in the social hierarchy (Sheldon and Kasser 2008; Van Boven and Gilovich 2003), while the main goal of social experience choice is to share experiences with others (Van Boven and Gilovich 2003). For example, choosing a luxury car (e.g., BMW) or a costly watch (e.g., Rolex) could be an example of social status choice. Conversely, choosing a tent (e.g., Columbia) or a sleeping bag (e.g., MEC) to camp in a national park with one's family could be an example of social experience choice. Notably, a given brand could be chosen primarily for social status or social experience purposes, depending on its positioning in the consumer's mind. For example, a BMW car can be chosen as a social status product if a consumer acquires the product mainly for the purpose of signalling social status; alternatively it can be chosen as a social experience product if the consumer's main purpose is to enjoy experiences with family members. Notably, this distinction in the present research between social status choice versus social experience choice is analogous to other choice taxonomies in the literature such as hedonic versus utilitarian choice, and functional versus symbolic choice (Dhar and Wetenbroch 2000).

In the present research, we propose that MSS and MSLO have divergent effects on type of choice. With respect to MSS, past research on mortality salience suggests that one way individuals can cope with fear of their own death is to bolster self-esteem (Greenberg et al. 1990; Pyszczynski, Greenberg, and Solomon, 1999). Therefore, when MSS is primed, the need for self-esteem bolstering is likely to be salient. Because possessing social status products can enhance one's self-esteem in capitalist societies (Solomon, Greenberg, and Pyszczynski, 1991), we argue that MSS can lead to a preference for social status choice options over social experience choice options.

Next consider MSLO. When MSLO is primed, we argue that the need for social connection is likely to be salient. Past research has indicated that the need for social connection, or the desire for interpersonal attachment, is a fundamental human motivation (Bowlby 1973; Baumeister and Leary, 1995). The prospect of the death of a loved one is likely to increase the salience of goals associated with this loved one, such as affiliation and connectedness (Harvey 2002; Thompson 1985). As a result, after being reminded of losing a loved one through death, an individual's need for social connection can become more salient. This argument is consistent with past research showing that people who have suffered the loss of a loved one would place greater value on relationships and connections with others (Tedeschi and Calhoun 1996). Because experiences are generally considered more social in orientation and are more likely to satisfy the need for social

connection than high-status possessions are (Van Boven 2005), we argue that MSLO can lead to a preference for social experience choice options over social status choice options. The preceding arguments are summarized in the following hypothesis:

H1: *Type of mortality salience will influence type of choice such that:*

- (a) *MSS individuals will prefer social status choice options over social experience choice options.*
- (b) *MSLO individuals will prefer social experience choice options over social status choice options.*

In H1 above, we have proposed the different effects of type of mortality salience on type of choice. In the next section, we propose that an individual's self-construal can thus moderate the effect of type of mortality salience on type of choice.

Self-Construal

Self-construal refers to how people view themselves either as an individuated entity or in relation to others (Singelis 1994). Past research indicates that there are two distinct types of self-construal, namely interdependent self-construal and independent self-construal. Interdependent self-construal has been described as self-representation in terms of others, which emphasizes belongingness and interconnection with others (Cross and Madson 1997; Markus and Kitayama 1991). In contrast, independent self-construal has been described as one's sense of uniqueness, which emphasizes individual achievement and distinction from others (Cross and Madson 1997; Markus and Kitayama 1991). Past research indicates that independent self-construal and interdependent self-construal are conceptually distinct (Singelis, 1994). Past research has also shown that individuals may have both independent and interdependent self-construal, which can differ in their relative strength (Cross and Markus, 1991). Given the distinct nature of independent self-construal and interdependent self-construal, we examine these two types of self-construal separately in the present research. In particular, we argue that interdependent self-construal is more strongly related to the need for social connection, while independent self-construal is more strongly related to the need for self-esteem bolstering. Consequently, interdependent self-construal and independent self-construal can moderate the effects of type of mortality salience on type of choice.

First, consider interdependent self-construal. People high in interdependent self-construal put more emphasis on interconnection with others, so they might have a stronger need for social connection than those low in interdependent self-construal. We have argued earlier that MSLO activates one's need for social connection, which leads to preference for social experience choice options over social status choice options. If interdependent self-construal highlights the need for social connection, then the relative preference for social experience (over social status) choice options in the case of MSLO individuals should be more pronounced among those high in interdependent self-construal compared with those low in interdependent self-construal. On the other hand, we have proposed that MSS can lead to preference for social status choice options over social experience choice options. If interdependent self-construal highlights the need for social connection, then the relative preference for social status (over social experience) choice options in the case of MSS individuals should be stronger among those low in interdependent self-construal

compared with those high in interdependent self-construal. The preceding arguments are summarized in the following hypothesis:

H2: *Interdependent self-construal moderates the effect of type of mortality salience on type of choice such that:*

- (a) *The preference for social experience choice options over social status choice options in the case of MSLO individuals will be stronger for those high in interdependent self-construal, than for those low in interdependent self-construal.*
- (b) *The preference for social status choice options over social experience choice options in the case of MSS individuals will be stronger for those low in interdependent self-construal, than for those high in interdependent self-construal.*

Next, consider independent self-construal. People high in independent self-construal put more emphasis on individual achievement and distinction from others. In a materialistic culture, bolstering self-esteem through possessing high status products can be a way to manifest individual achievement and differentiate oneself from others (Marks and Kitayama 1991; Solomon et al. 1991). We have argued earlier that MSS activates one's need for self-esteem bolstering, which leads to preference for social status choice options over social experience choice options. If independent self-construal highlights individual achievement through possessing high status products, then the relative preference for social status (over social experience) choice options in the case of MSS individuals should be more pronounced among those high in independent self-construal compared with those low in independent self-construal. On the other hand, we have proposed that MSLO can lead to preference for social experience choices over social status choices. If independent self-construal highlights individual achievement through possessing high status products, then the relative preference for social experience (over social status) choice options in the case of MSLO individuals should be more pronounced among those low in independent self-construal compared with those high in independent self-construal. The preceding arguments are summarized in the following hypothesis:

H3: *Independent self-construal moderates the effect of type of mortality salience on type of choice such that:*

- (a) *The preference for social status choice options over social experience choice options in the case of MSS individuals will be stronger for those high in independent self-construal, than for those low in independent self-construal.*
- (b) *The preference for social experience choice options over social status choice options in the case of MSLO individuals will be stronger for those low in independent self-construal, than for those high in independent self-construal.*

In the following sections, we describe four studies designed to test the hypotheses. Studies 1 and 2 tested H1, study 3 tested H2, and study 4 tested H3.

STUDY 1

Design & Procedure

This study was designed as a 2 (Type of Mortality Salience: MSS vs. MSLO) x 2 (Choice Option: Social Status vs. Social Experience) between-subjects factorial which allows to test the effect of MSS and MSLO on type of choice as proposed in H1. One hundred and twenty four undergraduate students from a Canadian university and a junior college voluntarily participated in the study for 5-dollar compensation. The sample size in study 1, as in other studies in this research, is decided based on the desired confidence level and margin of error which can ensure the accuracy of results from the studies. The cover story described the study as a survey on the effects of emotion and personality on the attitudes of college students toward advertisements. Participants were invited to a computer lab where they answered an online questionnaire. To correspond with the cover story, the first session of the questionnaire included filler questions from the big five personality test (John, Donahue, and Kentle 1991). After answering the filler questions, participants were randomly assigned to one of the two types of mortality salience: MSS or MSLO. In the MSS condition, participants responded to two open-ended questions used in previous mortality salience research (e.g., Arndt et al. 2004): (a) "Please briefly describe the emotions that the thought of your own death awakens in you" and (b) "Describe, as specifically as you can, what you think will happen to you as you physically die and once you are physically dead." Participants in the MSLO condition were first asked to think of a deeply loved parent and then to indicate, using seven-point Likert scales, how important and close this parent was to them. Then they were asked to respond to two similar open-ended questions adapted from Greenberg et al. (1994): (a) "Please briefly describe the emotions that the thought of this loved one's death arouses in you," and (b) "Describe, as specifically as you can, what you think will happen to this loved one as he or she dies, and once he or she has died."

All participants then completed the Positive and Negative Affect Scale (PANAS) for mood (Watson, Clark, and Tellegen 1988), followed by a filler anagram task. This filler task was introduced between the manipulation and choice task in accordance with prior mortality salience research which found mortality salience manipulations to be more effective after a delay (Arndt et al. 2004). Participants' mood states were found to be unaffected by the mortality salience manipulation, hence this factor is not discussed further.

Next, participants were asked to examine an advertisement for a BMW car. The advertisement included a slogan which manipulated choice option. The dependent variable, preference for choice option, was measured by attitude towards the brand and purchase intent (Mandel and Heine 1999). Attitude towards the brand was measured by a single item scale: "To what extent do you like the product in the advertisement?" Purchase intent was measured by a three-item scale: (1) "After reading the advertisement, how possible is it that you will buy the product in the future?" (2) "After reading the advertisement, how likely is it that you will buy the product in the future?" and (3) "After reading the advertisement, how probable is it that you will buy the product in the future?" Participants indicated their answers on a seven-point Likert scale (1=not at all / 7=very much). Note that, in this and subsequent studies, my dependent variable is preference for choice option which acts as a proxy for actual choice. Past research on attitude-

behavior consistency indicates that individuals' attitude towards high involvement products (e.g., BMW car) can be a significant predictor of their actual choice behavior (Kokkinaki and Lunt 1997). As a result, preference for choice option is likely to be a relevant proxy for actual choice in my studies which use high involvement products as stimuli. We also empirically address this issue in the general discussion section, where we report the results of a follow up study that measures effects of mortality salience on actual choice.

Next, the manipulation of choice option was checked by participants' responses to the following binary scale: "Please pick the statement below that best describes the slogan in the advertisement: a) it focuses on owning a BMW car as a high-status possession; b) it focuses on using a BMW car to enjoy a good experience with a loved one." As in Mandle and Heine (1999), student participants were told to assume for all the questions that they had graduated from college and were earning a comfortable salary. Thus, they could afford any of the items, though acquiring them would likely involve having to forego other purchases. At the end of the study, participants were thanked and debriefed.

Results

Manipulation Checks. In general, participants' answers to the binary choice question were consistent with the manipulation of choice option. Data from participants who indicated answers contrary to the manipulation were discarded before analysis, resulting in an effective sample size of 116.

Hypothesis Tests. We tested H1 by conducting a two-way between-subjects ANOVA with type of mortality salience and choice option as the independent variables and preference of choice option as the dependent variable (see table 1).

TABLE 1
TYPE OF MORTALITY SALIENCE & PREFERENCE FOR CHOICE OPTIONS (STUDY 1)

Preference	Type of mortality salience	Social choice status	Social choice experience	p-value (one-tailed)
Brand Attitude	MSS	4.85 (1.60)	4.03 (1.83)	$t(112)=3.02; p=.04$
	MSLO	3.58 (1.94)	4.43 (1.78)	$t(112)=3.41; p=.03$
Purchase Intent	MSS	4.76 (1.54)	4.03 (1.67)	$t(112)=2.79; p=.05$
	MSLO	3.66 (1.71)	4.46 (1.88)	$t(112)=3.28; p=.04$

Note: Numbers in the table are means (standard deviation).

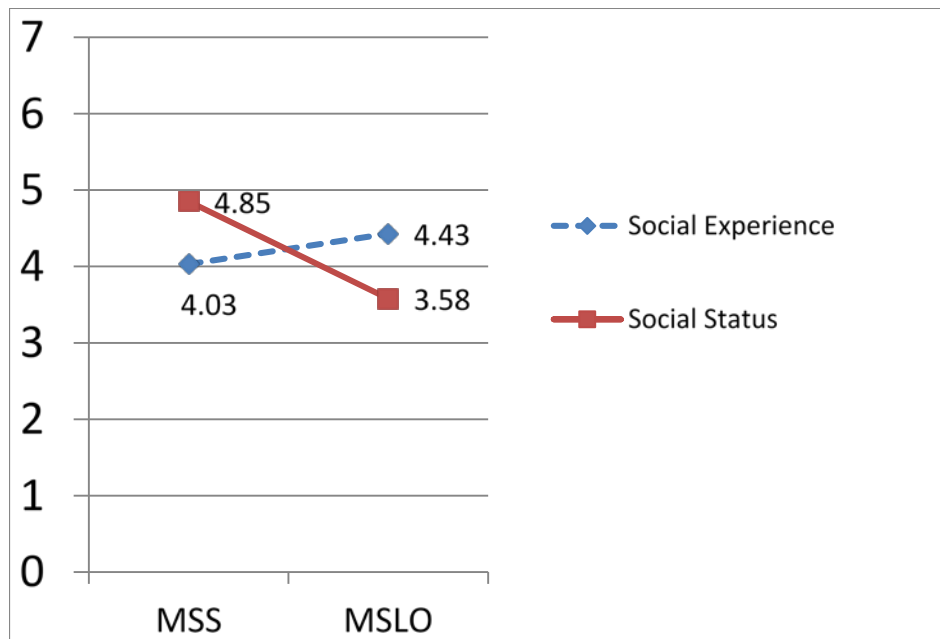
As described earlier, preference for choice option was measured by brand attitude and purchase intent. Regarding brand attitude, there was a significant interaction between type of mortality salience and choice option ($F(1, 112)=6.3, p<.02$). The results showed no significant effect of type of mortality salience ($F(1, 112)=1.72, NS$) or choice option ($F(1, 112)=.01, NS$). Pairwise comparisons using the overall error showed that MSS participants reported more positive

brand attitude for BMW when the product was framed as a social status choice option. In contrast, MSLO participants reported more positive brand attitude for BMW when the product was framed as a social experience choice option. Note that the t-tests in the pairwise comparisons in this research are one-tailed hypothesis tests since my research hypotheses are predicting differences in particular directions.

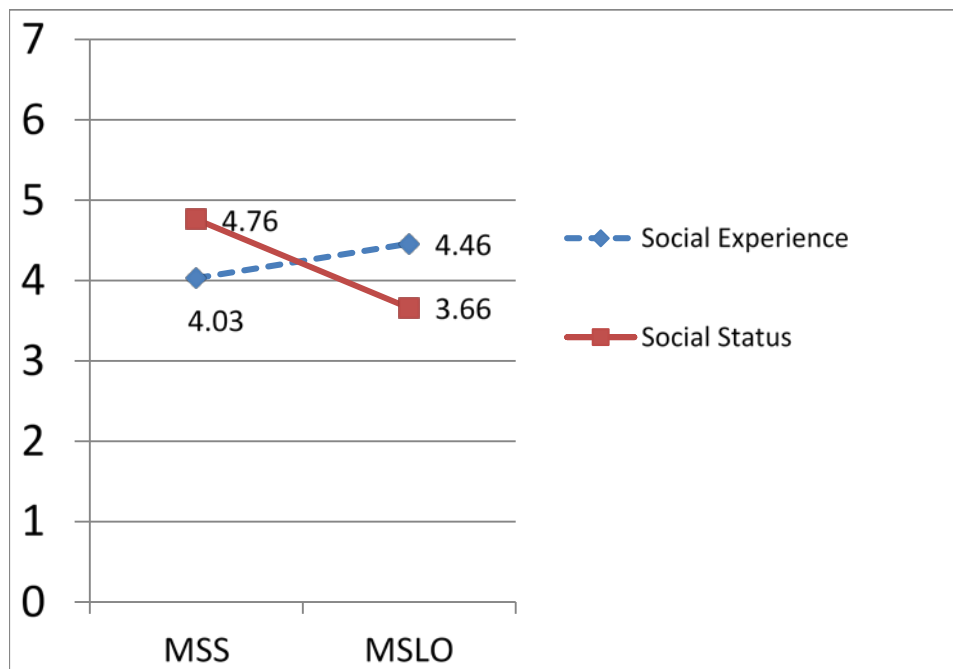
Regarding purchase intent, there was a significant interaction between type of mortality salience and choice option ($F(1, 112)=6.1, p<.02$). The results showed no significant effect of type of mortality salience ($F(1, 112)=1.26, NS$) or choice option ($F(1, 112)=.05, NS$). Pairwise comparisons results were consistent with those on brand attitude. Overall, these results support H1a and H1b (see figure 1).

FIGURE 1
TYPE OF MORTALITY SALIENCE & TYPE OF CHOICE ON BMW (STUDY 1)

DV: Brand Attitude



DV: Purchase Intent



Study 2 was designed with two objectives in mind. First, we wanted to conduct a more complete test of H1 by including a control condition without mortality thoughts. Second, we

wanted to test the robustness of results in two new product categories, namely tablet computer and TV.

STUDY 2

Design & Procedure

The study was designed as a 3 (Type of Mortality Salience: MSS vs. MSLO vs. Control) x 2 (Choice Option: Social Status vs. Social Experience) between-subjects factorial which allows to test the effects of MSS and MSLO, in comparison to a control condition, on type of choice. Two hundred and seventeen undergraduate students from a Canadian university and a junior college participated in the study for five dollars compensation. After reading the same cover story and answering the same manipulation questions as in study 1, participants were asked to examine product advertising for iPad in the tablet computer category and Panasonic 3D TV in the TV category. The presentation of the products' advertising was counterbalanced. As in the previous study, choice option was manipulated by slogans. Preference for choice option was measured by brand attitude and purchase intention, using the same scales as in study 1. For each brand, participants also answered a binary choice scale which checked the manipulation of choice option as in study 1. Participants were told to assume for all the questions that they had graduated from college and were able to afford the products. At the end, participants were thanked and debriefed.

Results

Manipulation Checks. In general, participants' answers to the binary choice question were consistent with the manipulation of choice option. Data from participants who indicated answers contrary to the manipulation were discarded before data analysis, resulting in an effective sample size of 196.

Hypothesis Tests. To conduct a more complete test of H1, we included a control condition without mortality thoughts in study 2. The logic in doing so is that participants in the control condition may not have any significant change on either type of need. Thus, we expect that their preferences for social status choice options and social experience choice options may not differ significantly.

We tested H1 by first conducting a MANOVA test, with preference of choice option on iPad and Panasonic 3DTV as repeated factors, and with type of mortality salience and choice option as between-subject variables. The results on brand attitude revealed significant interaction between type of mortality salience and choice option (Hotelling's trace=.06, $F(2, 190)=2.96$, $p<.03$), and non-significant effect of type of mortality salience (Hotelling's trace=.005, $F(2, 190)=.24$, NS) or choice option (Hotelling's trace=.01, $F(2, 190)=.07$, NS). Similarly, the analysis with purchase intent as the dependent variable also revealed significant interaction between type of mortality salience and choice option (Hotelling's trace=.05, $F(2, 190)=2.55$, $p<.04$), and non-significant effect of type of mortality salience (Hotelling's trace=.004, $F(2, 190)=.20$, NS) or choice option (Hotelling's trace=.002, $F(2, 190)=.23$, NS). Given the significant interaction revealed in the omnibus MANOVA, we proceeded to test H1 separately for Panasonic 3D TV and

iPad. We tested H1 by conducting a two-way between-subjects ANOVA with type of mortality salience and choice option as the independent variables, and preference of choice option as the dependent variable (see table 2).

TABLE 2
TYPE OF MORTALITY SALIENCE & PREFERENCE FOR CHOICE OPTIONS (STUDY 2)

Brand	Preference	Type of mortality salience	Social status choice	Social experience choice	p-value (one-tailed)
Panasonic 3D TV	Brand Attitude	MSS	4.44 (1.78)	3.66 (1.83)	$t(190)=3.06$; $p=.04$
		MSLO	3.64 (1.87)	4.38 (1.76)	$t(190)=3.37$; $p=.03$
		Control	3.96 (1.73)	4.31 (1.83)	$t(190)=.44$; $p=.26$
	Purchase Intent	MSS	3.74 (1.42)	3.14 (1.53)	$t(190)=2.09$; $p=.08$
		MSLO	3.10 (1.47)	3.79 (1.46)	$t(190)=5.38$; $p=.01$
		Control	3.41 (1.31)	3.51 (1.48)	$t(190)=.09$; $p=.38$
iPad	Brand Attitude	MSS	4.97 (1.90)	4.06 (1.93)	$t(190)=3.91$; $p=.03$
		MSLO	3.84 (1.89)	4.82 (1.95)	$t(190)=5.19$; $p=.02$
		Control	4.44 (1.68)	4.31 (1.91)	$t(190)=.02$; $p=.45$
	Purchase Intent	MSS	4.43 (1.90)	3.61 (1.80)	$t(190)=3.18$; $p=.04$
		MSLO	3.40 (1.88)	4.16 (1.83)	$t(190)=3.10$; $p=.04$
		Control	3.80 (1.94)	4.11 (2.04)	$t(190)=.35$; $p=.28$

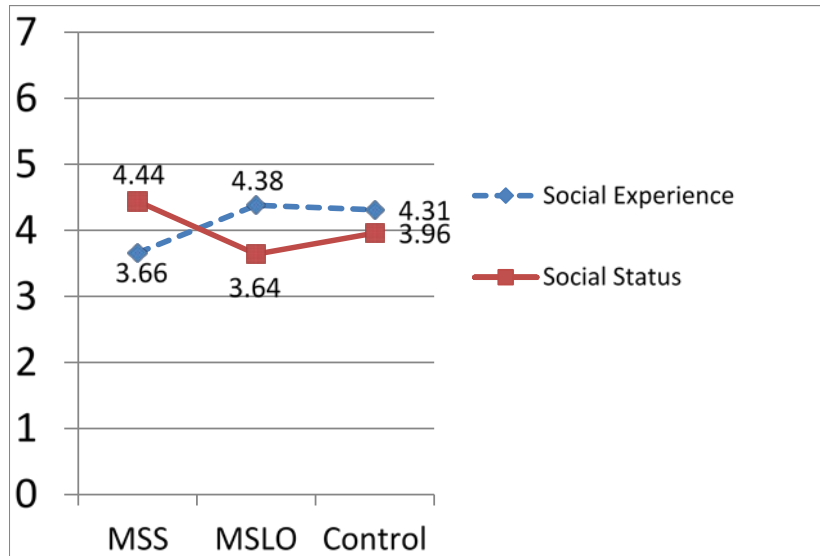
Note: Numbers in the table are means (standard deviation).

Regarding Panasonic 3D TV, with respect to brand attitude, the between-subjects ANOVA results revealed a significant interaction between type of mortality salience and choice option ($F(2, 190)=3.33$, $p<.04$). The results showed no significant effect of type of mortality salience ($F(2, 190)=.33$, NS) or choice option ($F(1, 190)=.53$, NS). Pairwise comparisons using the overall error term showed that MSS participants reported more positive brand attitude for Panasonic 3D TV when the product was framed as a social status choice. In contrast, MSLO participants reported more positive brand attitude for Panasonic 3D TV when the product was framed as a social experience choice option. Further, control participants did not report significantly different brand attitude for Panasonic 3D TV under different choice option condition.

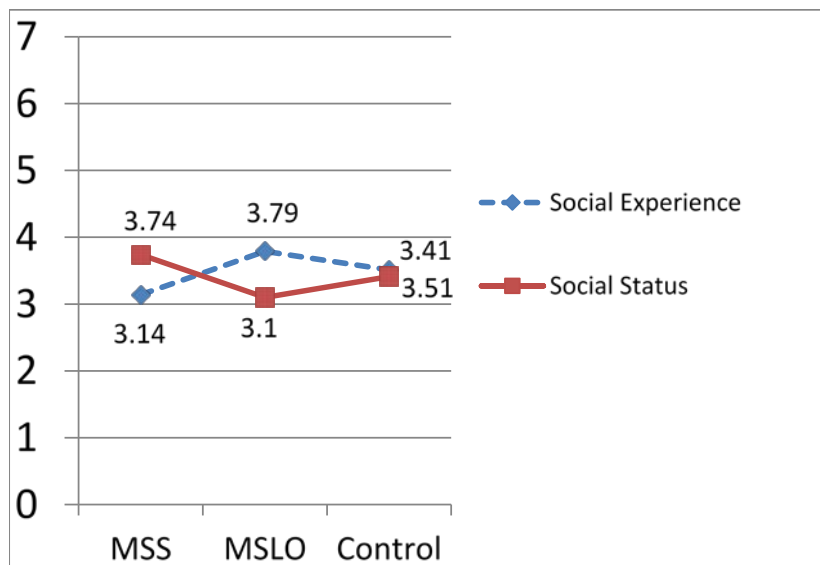
With respect to purchase intent for Panasonic 3D TV, there was a significant interaction between type of mortality salience and choice option ($F(2, 190)=3.57$, $p<.03$). The results showed no significant effect of type of mortality salience ($F(1, 190)=.02$, NS) and choice option ($F(2, 190)=.06$, NS). Pairwise comparison results were consistent with those on brand attitude. Overall, the results for Panasonic 3D TV support H1a and H1b (see figure 2).

FIGURE 2
TYPE OF MORTALITY SALIENCE & TYPE OF CHOICE ON PANASONI3DTV (STUDY 2)

DV: Brand Attitude



DV: Purchase Intent



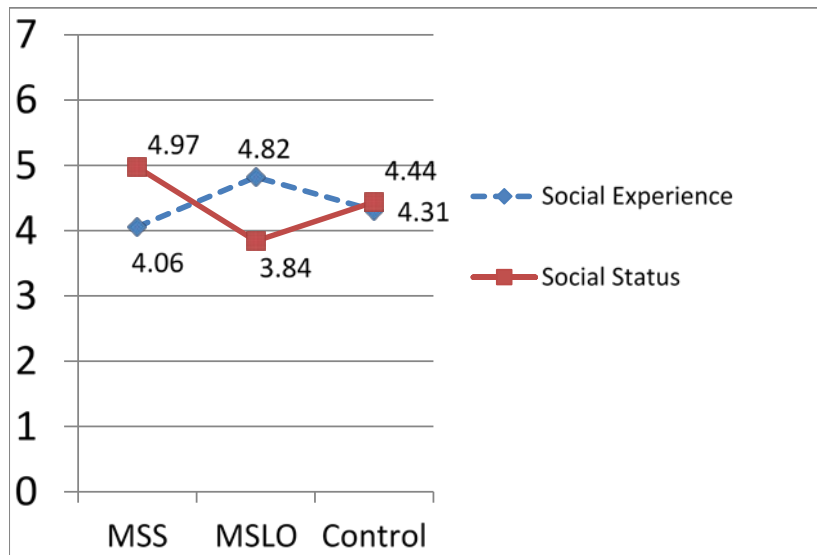
Regarding iPad, with respect to brand attitude, the between-subjects ANOVA results revealed a significant interaction between type of mortality salience and choice option ($F(2, 190)=4.5, p<.02$). The results showed no significant effect of type of mortality salience ($F(2, 190)=.18, NS$) or choice option ($F(1, 190)=.01, NS$). Pairwise comparisons using the overall error term showed that MSS participants reported more positive brand attitude for iPad when the product

was framed as a social status choice option. In contrast, MSLO participants reported more positive brand attitude for iPad when the product was framed as a social experience choice. Further, control participants did not report significantly different brand attitude towards iPad under different choice option condition.

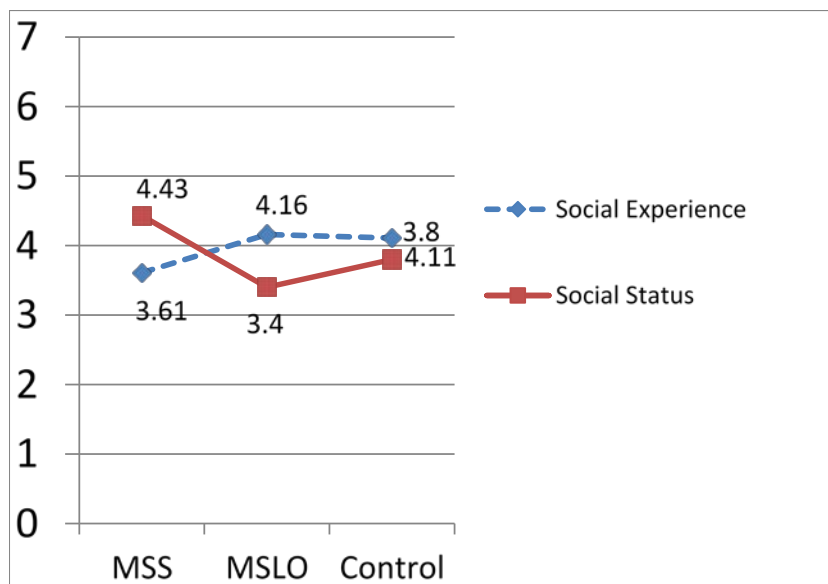
With respect to purchase intent on iPad, there was a significant interaction between type of mortality salience and choice option ($F(2, 190)=3.25, p<.05$). The results showed no significant treatment effect of type of mortality salience ($F(2, 190)=.30, NS$) or choice option ($F(1, 190)=.09, NS$). Pairwise comparison results were consistent with those on brand attitude. Overall, the results for iPad support H1a and H1b (see figure 3).

FIGURE 3
TYPE OF MORTALITY SALIENCE & TYPE OF CHOICE ON IPAD (STUDY 2)

DV: Brand Attitude



DV: Purchase Intent



Study 3 was designed to test hypotheses H2 regarding the moderating effect of interdependent self-construal. In study 1 and 2, both measures of the dependent variable, namely brand attitude and purchase intent have produced the same results on testing the hypotheses. Hence, for the sake of parsimony in the moderation analysis, study 3 will measure the dependent variable using purchase intent only. Study 3 used one product category from study 1 and one product category from study 2 to increase comparability of the results across studies.

STUDY 3

Design & Procedure

Study 3 was designed as a 2 (Type of Mortality Salience: MSS vs. MSLO) x 2 (Choice Option: Social Status vs. Social Experience) x 2 (Interdependent Self-Construal: High vs. Low) between-subjects factorial which allows to test the moderating effect of interdependent self-construal on the effects of MSS and MSLO. One hundred and fifty three students from a Canadian university participated in the study in exchange for a chance to win one of the two 8G iPod nanos worth \$170 each. The cover story was similar to previous studies, and participants were told that the study was designed to understand how emotion and personality affect college students' attitude toward advertisements. Participants were invited to a lab where they answered a paper & pencil questionnaire in a cubicle. Seven participants provided incomplete answers to the dependent variables, so their questionnaires were discarded. After answering filler questions on personality as in study 1, participants were randomly assigned to MSS or MSLO condition manipulated as in study 1. They then completed the Positive and Negative Affect Scale (PANAS), followed by a filler anagram task. Participants' mood states were found to be unaffected by mortality salience manipulation, hence this factor is not reported further.

Participants were then asked to examine advertisements for a BMW car and iPad. The presentation of the two brands was counterbalanced. The manipulation of choice option within these brands was the same as in studies 1 and 2. Preference for choice option was measured by purchase intent, using the same three-item scale as in studies 1 and 2. For each brand, participants also answered a binary choice scale which checked the manipulation of choice option. Participants were also told to assume for all the questions that they had graduated from college and were able to afford the products.

In the last section of the study, participants completed Singelis' (1994) 12-item measure of interdependent self-construal. This scale has been validated in previous research on a variety of cultural groups (Singelis 1994; Singelis et al. 1999). Sample items included, "I often have the feeling that my relationships with others are more important than my own accomplishments," and "my happiness depends on the happiness of those around me." Responses ranged from "strongly disagree" (1) to "strongly agree" (7). Participants' responses to the 12 items were averaged into an index. Cronbach's alpha for interdependent self-construal scale was .73, similar to the results reported in previous research (Singelis 1994; Oyserman, Coon and Kemmelmeier 2002). High and low levels of interdependent self-construal were constructed by a median split on responses to the scale. Finally, participants were thanked and debriefed.

Results

Manipulation Checks. In general, participants' answers to the binary choice questions were consistent with the manipulation of choice option. Data from participants who indicated answers contrary to the manipulation were discarded before data analysis, resulting in an effective sample size of 138.

Interdependent Self-Construal and MSLO. We tested H2a by first conducting a MANOVA test on MSLO participants, with purchase intent for BMW and iPad as repeated factors, along with choice option and interdependent self-construal as between-subjects variables. The results revealed significant directional main effect of choice option (Hotelling's trace=.112, $F(1, 64)=3.70$, $p<.04$) and marginally significant interaction of level of interdependent self-construal by choice option (Hotelling's trace=.073, $F(1, 64)=2.42$, $p<.10$). Overall, results from MANOVA provided initial support for the moderating role of interdependent self-construal. Given the marginally significant effect revealed in the omnibus MANOVA, we proceeded to test H2a separately for BMW and iPad in the case of MSLO participants. We tested H2a by conducting a two-way between-subjects ANOVA using choice option and interdependent self-construal as independent variables, and purchase intent as dependent variable (see table 3)

TABLE 3
INTERDEPENDENT SELF-CONSTRUAL & PREFERENCE FOR CHOICE OPTIONS IN MSLO CONDITION
(STUDY 3)

Brand	Interdependent construal	self- Social choice	status	Social experience choice	p-value (one-tailed)
BMW	High	3.00 (1.69)		4.48 (1.55)	$t(64)=9.10$, $p=.002$
	Low	3.33 (1.36)		3.04 (1.38)	$t(64)=.32$, $p=.29$
iPad	High	2.38 (1.87)		4.37 (1.95)	$t(64)=10.74$, $p=.001$
	Low	2.64 (1.58)		3.21 (1.67)	$t(64)=.88$, $p=.18$

Note: Numbers in the table are means (standard deviation).

Regarding MSLO participants' purchase intent for BMW, the between-subjects ANOVA results revealed a significant main effect of choice option ($F(1, 64)=6.13$, $p<.02$) and marginally significant interaction between choice option and interdependent self-construal ($F(1, 64)=2.75$, $p<.10$). Pairwise comparisons using the overall error term showed that MSLO participants high in interdependent self-construal have stronger purchase intent for the BMW when it was framed as a social experience choice. This effect of choice option disappeared on MSLO participants low in interdependent self-construal. The results for BMW were consistent with the proposed moderating role of interdependent self-construal on MSLO participants.

Regarding MSLO participants' purchase intent on iPad, the between-subject ANOVA results revealed a significant main effect of choice option ($F(1, 64)=5.30$, $p<.03$) and marginally significant interaction between choice option and interdependent self-construal ($F(1, 64)=2.76$, $p<.10$). Pairwise comparison results were consistent with those on BMW. Thus, the results for iPad were consistent with the proposed moderating role of interdependent self-construal on MSLO participants. Overall, results from study 3 support H2a.

Interdependent Self-Construal and MSS. We tested H2b by first conducting a MANOVA test on MSS participants, with purchase intent for BMW and iPad as repeated factors, along with

choice option and interdependent self-construal as between-subjects variables. The results revealed a marginally significant directional main effect of choice option (Hotelling's trace=.09, $F(1, 66)=2.89$, $p<.07$) and non-significant interaction of interdependent self-construal by choice option (Hotelling's trace=.061, $F(1, 66)=2.01$, $p=.14$). Given the non-significant interaction, we concluded that H2b was not supported by the data.

Study 4 was designed to test hypothesis H3 regarding the moderating effects of independent self-construal. For the same parsimony purpose, Study 4 checks the dependent variable using one measurement only. To check the robustness of measurement, study 4 switches to measure brand attitude using a three-item scale, rather than the single item scale used in earlier studies. This study used one product category from study 3 (i.e., TV) to facilitate comparability with earlier results, as well as a new product category (i.e., computer) to further test robustness of the results.

STUDY 4

Design & Procedure

Study 4 was designed as a 2 (Type of Mortality Salience: MSS vs. MSLO) x 2 (Choice Option: Social Status vs. Social Experience) x 2 (Independent Self-Construal: High vs. Low) between-subjects factorial which allows to test the moderating effects of independent self-construal on the effects of MSS and MSLO. Two hundred and twenty seven students from a Canadian university and a junior college participated in the study in exchange for two dollars compensation and a chance to win a 16GB iPhone 5 worth \$200. The cover story was similar to previous studies, and participants were told that the study was designed to understand how personality affects college students' attitude toward advertisements. Participants were invited to a computer lab where they completed an online questionnaire. After answering filler questions on personality as in study 1, participants were randomly assigned to MSS or MSLO condition manipulated as in study 1. They then completed the Positive and Negative Affect Scale (PANAS), followed by a filler anagram task. Participants' mood states were found to be unaffected by mortality salience manipulation, hence this factor is not reported further.

Next, participants were asked to examine advertisements for Panasonic 3D TV in the TV category and Apple MacBook computer in the laptop computer category. The presentation of the two brands was counterbalanced. The manipulation of choice option for Panasonic 3D TV was the same as in study 2. Regarding Apple MacBook, the slogan in the social experience condition was, "Enjoy a better experience with others"; the slogan in the social status condition was, "Show your owner's pride to others". Preference for choice option was measured by product attitude, using three bipolar evaluative scales (Gardner 1983) on the question: "Please rate your feelings towards the product in the advertisement on the following scales". Participants indicated their answers to the question using a seven-Likert scale (bad/good, dislike/like, unpleasant/pleasant). For each brand, participants also answered a binary choice scale which checked the manipulation of choice option. Participants were also told to assume for all the questions that they had graduated from college and were able to afford the products.

In the last section of the study, participants completed Singelis' (1994) twelve-item scale for independent self-construal. This scale has been validated in previous research on a variety of cultural groups (Singelis 1994; Singelis et al. 1999). Sample items included, "I enjoy being unique and different from others in many respects," and "My personal identity independent of others, is very important to me." Responses ranged from "strongly disagree" (1) to "strongly agree" (7). Participants' responses to the 12 items were averaged into an index. Cronbach's alpha for interdependent self-construal scale was .76, similar to the results reported in previous research (Singelis 1994; Oyserman et al. 2002). High and low levels of independent self-construal were constructed by a median split on responses to the scale. Finally, participants were thanked and debriefed.

Results

Manipulation Checks. In general, participants' answers to the binary choice question were consistent with the manipulation of choice option. Data from participants who indicated answers contrary to the manipulation were discarded before data analysis, resulting in an effective sample size of 205.

Independent Self-Construal and MSS. We tested H3a by first conducting a MANOVA test on MSS participants, with brand attitude for Panasonic 3D TV and MacBook laptop as repeated factors, along with choice option and independent self-construal as between-subjects variables. The results revealed significant effect of choice option (Hotelling's trace=.192, $F(1, 97)=9.21$, $p<.01$) and significant interaction of interdependent self-construal by choice option (Hotelling's trace=.107, $F(1, 97)=5.13$, $p<.01$). Overall, results from MANOVA provided initial support on the moderating role of independent self-construal. Given the significant effect revealed in the omnibus MANOVA, we proceeded to test H3a separately for Panasonic 3D TV and MacBook laptop in the case of MSS participants. We tested H3a by conducting a two-way between-subjects ANOVA using choice option and independent self-construal as the independent variables and brand attitude as dependent variable (see table 4).

TABLE 4
INDEPENDENT SELF-CONSTRUAL & PREFERENCE FOR CHOICE OPTIONS IN MSS CONDITION
(STUDY 4)

Brand	Independent construal	self- Social status choice	Social experience choice	p-value (one-tailed)
Panasonic 3DTV	High	4.68 (1.12)	3.71(1.34)	$t(97)=9.18$, $p=.002$
	Low	4.44(1.31)	4.30 (1.21)	$t(97)=.05$, $p=.41$
MacBook Laptop	High	5.21 (1.38)	4.10 (1.51)	$t(97)=8.1$, $p=.002$
	Low	4.89 (1.30)	4.60 (1.29)	$t(97)=.97$, $p=.16$

Note: Numbers in the table are means (standard deviation).

Regarding MSS participants' brand attitude for Panasonic 3D TV, the between-subjects ANOVA results revealed a significant main effect of choice option ($F(1, 97)=5.36, p<.03$) and marginally significant interaction between choice option and interdependent self-construal ($F(1, 97)=3.15, p<.08$). Pairwise comparisons using the overall error term showed that MSS participants high in independent self-construal reported more positive attitude for Panasonic 3D TV when it was framed as a social status choice. This effect of choice option disappeared on MSS participants low in independent self-construal. The results for Panasonic 3D TV were consistent with the proposed moderating role of independent self-construal on MSS participants.

Regarding MSS participants' brand attitude on MacBook laptop, the between-subject ANOVA results revealed a significant main effect of choice option ($F(1, 97)=7.21, p<.01$) and marginally significant interaction between choice option and interdependent self-construal ($F(1, 97)=3.82, p<.06$). Pairwise comparison results were consistent with those on Panasonic 3D TV. Thus, the results for MacBook laptop were consistent with the proposed moderating role of independent self-construal on MSS participants. Overall, results from study 4 support H3a.

Independent Self-Construal and MSLO. We tested H3b by first conducting a MANOVA test on MSLO participants, with brand attitude for Panasonic 3D TV and MacBook laptop as repeated factors, along with choice option and independent self-construal as between-subject variables. The results revealed significant main effect of choice option (Hotelling's trace=.13, $F(1, 100)=6.41, p<.01$) and non-significant interaction of independent self-construal by choice option (Hotelling's trace=.02, $F(1, 100)=.98, NS$). Thus results from MANOVA did not support the moderating role of independent self-construal stated in H3b.

DISCUSSION

The present research differentiates between two types of mortality salience (i.e., MSS and MSLO) and shows that they can have different effects on type of choice. Specifically, we hypothesize and find that MSS individuals favor social status choice options over social experience choice options (H1a), whereas MSLO individuals favor social experience choice options over social status choice option (H1b). We argue that these divergent effects are driven by a need salience mechanism on self-esteem bolstering and social connection. As interdependent self-construal is more strongly related to the need for social connection, and independent self-construal is more strongly related to the need for self-esteem bolstering, we further argue that interdependent self-construal moderates the effects of MSLO (H2a) and MSS (H2b) on type of choice, and independent self-construal moderates the effects of MSS (H3a) and MSLO (H3b) on type of choice. Our results support H2a and H3a regarding the moderating effects of interdependent self-construal on MSLO individuals and independent self-construal on MSS individuals. These results indirectly support the proposed need salience mechanism. Our results do not support H2b and H3b regarding the moderating effect of interdependent self-construal on MSS individuals and the moderating effect of independent self-construal on MSLO individuals. The results imply that the effects of MSLO and MSS are not driven by the decreased need for self-esteem bolstering and the decreased need for social connection respectively. These results further complement the proposed need salience mechanism in that the effects of type of mortality salience are not driven by need

reduction. Notably, in our four studies, we have tested the robustness of hypotheses across different manipulations of choice options, different measures of product preference, and five product categories.

Contribution to the Literature

The present research makes three contributions to the literature on mortality salience. Firstly, consistent with past research (Wang 2014a, b), it distinguishes between two types of mortality salience, namely MSS and MSLO, and further exams their effect on type of choice. Past research on mortality salience assumed that MSLO and MSS influence consumer behaviour in a similar manner (Greenberg et al. 1997). We show in the present research that MSS and MSLO can actually have divergent effects on type of choice. Thus, this finding contributes to the literature by providing evidence for a new independent variable, namely type of mortality salience with MSS and MSLO as its two levels. The comparison of the effect sizes between MSS and MSLO in the present research with previous meta-analysis results may provide evidence of the distinctness of MSS and MSLO. Specifically, past meta-analysis has shown that MSS yielded moderate effects ($r=.35$) on a range of dependent variables, with effects increased for experiments using American participants (Burke, Martens and Faucher 2010). A pilot study of this research comparing the effect of MSS and MSLO with control condition on the preference for high-status products (a BMW car and a Rolex watch) has yielded effect size of .21 for MSS individuals and -.11 for MSLO individuals, which may validate the distinctness of MSS and MSLO in certain scenario.

Secondly, it contributes to the literature by proposing a new mediating mechanism based on need salience which may explain the divergent effects of MSS and MSLO on type of choice. Past research has identified worldview validation and self-esteem bolstering as two underlying mediating mechanisms that explain the effect of MSS on various outcome variables (Greenberg et al. 1997). In the present research, the effect of MSS on type of choice is related to the mediating mechanism of self-esteem bolstering. Based on past bereavement studies, we propose and test an additional mediating mechanism, namely the need for social connection that underlies the effect of MSLO on type of choice. Notably, in this research we didn't argue that the corresponding need is exclusively activated by MSS or MSLO. It is possible that MSS can also activate the need for social connection (Florian, Mikulincer & Hirschberger, 2002) and MSLO can also activate the need for self-esteem bolstering (Bonsu and Belk 2003). What we've proposed is that the corresponding need is more salient for MSS or MSLO individuals. In our studies, we verified the proposed need salience mechanism by testing the moderating role of independent self-construal and interdependent self-construal which are logically related to the need for self-esteem bolstering and social connection respectively. The observed moderating effects of independent self-construal on MSS individuals and interdependent self-construal on MSLO individuals provide indirect support for the proposed mediating mechanism based on need salience.

Thirdly, it contributes to the literature by identifying two new moderating variables, namely independent self-construal and interdependent self-construal which modify the effects of MSS versus MSLO on type of choice. Past research has investigated a range of moderators of MSS such as self-esteem, social presence, social value orientation, self-transcendent values and locus of control (Landau and Greenberg 2006; Joireman and Duell 2005, 2007; Miller and Mulligan

2002). In the present research, we demonstrate for the first time the moderating roles of independent self-construal and interdependent self-construal on the effects of MSS versus MSLO on type of choice. Notably, past research has investigated the effects of independent and interdependent self-construal in other domains. For example, independent self-construal has been found to moderate the effect of self-esteem on self-protection (Brockner and Chen 1996), need-for-cognition on purchase intent (Polyorat and Alden 2005), and self-concept connection on brand evaluations (Swaminathan, Page, and Gürhan-Canli 2007). Conversely, interdependent self-construal has been found to moderate the effect of procedural fairness on cooperation (Brockner et al. 2005), willpower on impulsive consumption (Zhang and Shrum 2009), and country-of-origin connection on brand evaluations (Swaminathan, Page, and Gürhan-Canli 2007). The present research adds to the literature on self-construal by showing the independent and interdependent self-construal can also play a moderating role in the domain of mortality salience.

Managerial Implication

This research highlights an important interaction effect between product choice option and type of mortality salience. It can provide practical implications for brand managers on planning and designing product advertisement. For example, if the preceding TV program or advertisement can prompt consumers to contemplate their own death (e.g., a death-theme series such as *Six Feet Under*, or an advertisement related to drinking or driving), a brand manager should highlight the product's social status aspect. Alternatively, if the preceding TV program or advertisement can prompt consumers to contemplate the death of a loved one (e.g., a program persuading children to insist their mothers get a breast cancer screening mammogram, or an advertisement related to infant safety), he should highlight the product's social experience aspect. Thus, to maximize the effectiveness of his advertising, a brand manager should be aware of the preceding TV program, as well as other advertisement embedded between when planning to air his. Regarding the manipulation of product choice option, a brand manager can use slogans, as shown in our studies. He can also adopt different graphic elements in designing the advertisement. For example, to highlight the social status aspect of the product, an image of a successful business man in suit can be used, whereas to highlight the social experience aspect of the product, an image of a loving and caring dad with his son can be used.

The above managerial application to marketing is destined to bring up a host of ethical concerns. Some may argue that it is unethical and even morally wrong to take advantage of people's anxieties evoked by mortality thoughts in order to sell products. Thus, we would suggest that this research can also be used in a more positive manner, namely on social marketing. Regarding MSS, past research has shown that one way that people may respond to MSS is to behave more like an exemplary citizen of their culture, thereby upholding their cultural values (Greenberg et al. 1990). As result, MSS can enhance prosocial attitudes and behaviors (Joire and Duell 2007; Jonas et al. 2002). So marketers of non-profit organizations for anti-poverty such as Salvation Army may find that subtle reminders of one's inevitable mortality may increase memberships to volunteer and donate. Social marketers may also find that presenting public service announcements denouncing such things as drugs, drunk driving or smoking are more effective when embedded within news or stories prompting the thought of one's own death.

Regarding MSLO, our research has shown that MSLO individuals have more salient need for social connection, so they prefer the social experience aspect of a product or service. So marketers of non-profit organizations such as Big Brothers Canada may find that subtle reminders of one's loved one's death may increase memberships to volunteer and donate. Social marketers may find that presenting public service announcements promoting such things as family harmony, community contribution or child safety are more effective preceded by news or stories prompting the thought of a loved one's death.

Limitations and Future Studies

There are several limitations of the present research that should be pointed out, which also provides suggestions for future studies. First, we didn't test the mediating role of need salience directly. Instead, we tested the proposed mediating mechanism indirectly through two moderators, namely interdependent self-construal and independent self-construal. Thus, this mediating mechanism can be checked more directly in future research by measuring need salience, and using need salience as a mediator in a mediation analysis. Past research has indicated that mortality salience works through a preconscious mental process (Pyszczynski et al. 1999), suggesting that an implicit measure of need salience might be most appropriate. Specifically, a future study could use an implicit measure based on visual word recognition. In this measure, participants would view self-esteem and social connection relevant words very briefly after receiving MSS or MSLO manipulation and indicate when they recognize a word. The underlying assumption for visual word recognition is that if words in a semantic category are salient in a viewer's mind, they will be identified more promptly than neutral words (Forster and Davis 1984; Besner and Smith 1992). Thus, the assumption of measuring need salience implicitly is that MSS individuals will recognize words related to self-esteem faster, whereas MSLO individuals will recognize words related to social connection faster.

Second, in our studies, participants' average degree of closeness ($M=6.2/7$, $SD=.94$) and importance to their parents ($M=6.6/7$, $SD=.78$) were relatively high. It is possible that relationship intensity can moderate the effect of MSLO on type of choice. Previous studies have shown that the degree to which a given person perceives his loss after the death of a loved one depends on how close (or engaging or mutually dependent) the relationship was (Levinger 1992). As a result, the strength of the relationship with a loved one can influence the intensity of MSLO. Specifically, it could be that when MSLO is about an important loved one (e.g., a parent), MSLO participants would be more likely to prefer social experience choice options over social status choice options, than when MSLO is about a so-so beloved person (e.g., a distant uncle). Hence, further study could investigate how relationship strength influences the effects of MSLO.

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STRATEGIC HUMAN RESOURCE MANAGEMENT IN NONPROFIT ORGANIZATIONS: A CASE FOR MISSION-DRIVEN HUMAN RESOURCE PRACTICES

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ABSTRACT

Non-profit organizations are faced with increasing pressure to make efficient use of their human resources, which if managed well can be a source of competitive advantage. The universalistic approach to strategic human resource management theory has dominated research in non-profit organizations, where a set of best human resource practices is prescribed for superior organizational performance. However, this approach may not fully capture the unique characteristics of strategic human resource practices in non-profit organizations, especially those that depend on non-traditional volunteers, such as episodic, short-term and or event-based volunteers. The current inductive study examined the nature of human resource practices that emerged in a non-profit organization using interviews and surveys collected from 133 episodic and short-term volunteers. We introduced the concept of mission-driven HR practices to classify the human resource practices that emerged and to underscore the importance of a values approach to strategic HR management in non-profit organizations. We found that an inclusive environment mediated the relationship between mission-driven HR practices and volunteer retention and recruitment.

INTRODUCTION

Increasing competition, globalization, and rapid changes in technology have all provided the impetus for organizations to reconsider the approaches they use to manage their diverse resources and capabilities, in order to achieve a competitive advantage (Cuskelly, Taylor, Hoye, & Darcy, 2006). Nonprofit organizations (NPOs) are no exception. Faced with increasing pressure to transform themselves into ‘professional’ and ‘business-like’ entities that make efficient use of their resources, NPOs must implement strategies to differentiate them from competitors so as to create value for their various stakeholders (Anheier & Seibel 2001; Ridder, Pening, & Baluch, 2011; Salamon 2002). Volunteers are critical resources for most NPOs to achieve their organization’s goals (Akingbola, 2013). It is therefore imperative for academics and practitioners alike to understand the factors that motivate individuals to provide “unobligated” and “sustained” volunteer services to organizations (Kim, Trail, Lim, & Kim, 2009).

Not surprising, interest in volunteerism research is increasing with studies focusing on volunteer satisfaction (e.g., Finkelstein, 2008; Mazi, 2015), volunteer outcomes, such as patient satisfaction (e.g., Rogers, Jiang, Rogers, & Intindola, 2016; Hotchkiss, Unruh, & Fottler, 2014), and in particular, volunteer motivations (e.g., Clary et al., 1998; Omoto & Snyder, 1995; Rehberg, 2005). For example, several studies have shown that the strength of individuals' personal motives for engaging in volunteer work affected their personal satisfaction and organizational commitment, which in turn influenced their willingness to continue volunteering (Davis, Hall & Meyer, 2003; Omoto & Snyder, 1995; Penner & Finkelstein, 1998; van Vianen, Nijstad & Voskuil, 2008). While these are, and will remain, important contributions to the volunteerism literature, few of these studies address the role of the organization (see van Vianen et al., 2008 for exception). Volunteers, however, operate in a broader organizational context and the characteristics of an organization's context could also affect volunteer satisfaction, commitment and retention (van Vianen et al., 2008). In particular, burgeoning research in the field of strategic human resource management (SHRM) suggests that management practices can increase employee satisfaction and commitment, and reduce turnover intentions (Jiranek, Kals, Humm, Strubel, & Wehner, 2013). Applying SHRM to NPOs offers a potentially useful tool for better understanding volunteer recruitment and retention.

The SHRM literature often relies on the resource-based view of the firm to explain the role of HR practices in firm performance (Becker & Huselid, 2006; Colbert, 2004; Messersmith, Lepak, Patel, & Williams, 2011). Fundamental to the resource-based arguments within the SHRM literature, is the idea that the idiosyncratic combination of resources that are valuable, rare, inimitable and non-substitutable namely, employees' skills, knowledge, and behavior, combined with high performance work systems (HPWS), are difficult to imitate, and as such may be sources of sustained competitive advantage (Akingbola, 2013; Colbert, 2004). In turn, these competitive advantages should produce positive returns (Hitt, Bierman, Shimizu & Kochhar, 2001). Indeed, SHRM researchers have found a positive relationship between HPWS and organizational outcomes such as productivity, sales growth, profitability and turnover (e.g., Huselid, 1995; Zacharatos, Barling, & Iverson, 2005).

The context of NPOs however, presents a set of unique and distinct resources and capabilities for strategy formulation and implementation (Akingbola, 2013). Of particular relevance to HRM is the participation of volunteers in the human resource (HR) pool, creating a cost advantage, and hence a competitive advantage to NPOs that are able to effectively manage these resources (Akingbola, 2013; Hartenian 2007). Despite the pivotal role volunteers play in NPOs, it is surprising that existing research on SHRM has almost exclusively focused on for-profit organizations, with only cursory attention given to NPOs and organizations that are volunteer-dependent (Akingbola, 2013; Alfes, Shantz, & Bailey, 2016; Colbert, 2004; Cuskelly et al., 2006; Hager, & Brudney, 2015). Yet, to assume that HR practices for managing paid employees can be directly applied to the volunteer workforce may be overly simplistic (Laczo and Hanisch,

1999, Newton, Becker, & Bell, 2014). For instance, as Newton and colleagues (2014) noted, “levers for retention of paid employees such as remuneration, bonuses and job security cannot be applied in a volunteer context” (p515). This begs the question of the relevance of some of these HR practices in the unique contexts of NPOs.

In light of these gaps in the literature, the current study was conducted to explore how SHRM unfolds in an NPO context using an inductive approach. In exploring the process, we introduce the concept of *mission-driven human resource practices* – defined as internally consistent HR practices designed to attract, develop and retain volunteers, and motivate their commitment to the organization’s mission. Further, we theorize that *mission-driven human resource practices* nurture an inclusive climate, which in turn promote volunteer retention outcomes.

This study contributes to the existing literature in several important ways. First, by investigating HR practices in an NPO context, we answer calls to extend SHRM research to a broader context (Cuskelly et al., 2006; Jackson, Schuler & Jiang, 2014; Wright & McMahan, 1992). Research in SHRM suggests that organizational context is a critical aspect in determining effective HRM practices (Cuskelly et al., 2006; Jackson et al., 2014). This study provides evidence of how SHRM unfolds in a mission-driven context. Second, by elucidating the process through which HR practices influence organizational performance, we contribute to the emerging debate on integrating diversity into the SHRM literature (Shen, Tang, & D’Netto, 2014). The study examines how the mission-driven HR practices foster an inclusive environment for a range of diverse volunteers and how this in turn influences volunteer outcomes. Finally, in this study, we examined the volunteer’s actual experience with the HR practices contributing to the existing SHRM literature. Few studies have examined HPWS experienced by individual employees, which is an oversight, since both theoretical and empirical evidence point to the fact that different individuals may be treated differently or may have different perceptions or experiences of the work practices (Liao, Toya, Lepak, & Hong, 2009). This is even more critical in NPOs where the volunteer experience is integral to the ability of organizations to recruit and retain volunteers (Hager & Brudney, 2008).

THEORETICAL FRAMEWORK

Strategic Human Resource Management in NPOs

SHRM is premised on the notion that HR is critical to an organization’s strategy and goals (Akingbola, 2013; Wright & McMahan, 1992). The majority of SHRM research focuses on the use of HPWS or systems of HR practices designed to enhance employees’ competencies, motivation and performance, as a fundamental source of competitive advantage for organizations (Liao et al., 2009). Although the concept of HPWS has not been consistently and precisely defined in the literature, it has generally been used to describe a system of HR practices that are aligned with other HR practices

and with the organizational strategy, such as recruitment, training, performance management and flexible job assignments (Messersmith et al., 2011).

One of the major theoretical perspectives that has been emphasized in SHRM research is the importance of organizational context as a contingency for HR practices (Batt 2000). In nonprofits, the social mission and the institutional characteristics of nonprofits are fundamental to the essence of SHRM in such contexts (Akingbola, 2013). Specifically, the unique nature of volunteers that comprise a significant proportion of the human resource pool of many NPOs raises questions about the relevance of certain HR practices (Akingbola, 2013; Newton et al., 2014). According to Laczko and Hanicsch (1999), a volunteer is an individual that 'donates his or her time, skills or services to an agency or organization without obligation, and without receiving direct financial compensation for his or her work' (p 456). These attributes of volunteers add to the complexity of NPOs and distinguish them from for-profit organizations in several important ways. First, because volunteers are unpaid, on the one hand they represent a particularly valuable resource for NPOs that often have limited financial resources, and have to rely on volunteers to provide the majority of their labor. On the other hand, precisely because volunteers are unpaid, renders certain traditional high performance HR practices, such as pay for performance, that have been found to be effective for motivating traditional employees, redundant or ineffective for volunteers.

Second, volunteers often act as community ambassadors for the organization, which can contribute to recruitment of other volunteers as well as generate financial donations for the organization, both of which are critical to the success of NPOs (Cuskelly et al., 2006). Hence, HR practices in NPOs must focus on how to elicit volunteers' commitment to the organization's cause. Finally, related to the previous point, research suggests that volunteers generally have a high level of commitment to the mission of their organization. For example, Light (2002) found that employees of NPOs had a higher connection with their organization's mission, than employees of business and public organizations. In a similar vein, we expect volunteers to be equally highly committed to the mission of the organization they serve. The challenge for NPOs therefore is how to leverage and sustain this already high level of commitment to the organization's mission to gain competitive advantage (Akingbola, 2013).

Similar to for-profit organizations, researchers contend that recruitment and retention of human resources represent some of the most pressing challenges for NPOs (Salamon & Geller, 2007; Rogers, Rogers, & Boyd, 2013), yet empirical evidence on volunteer retention is limited. A few studies have found a link between HR practices and volunteer retention. For example, Cuskelly and colleagues (2006) found that planning, orientation, training and support practices were associated with lower turnover amongst volunteers. Hidalgo and Moreno (2009) found that organizational support, positive job characteristics, and training contributed positively to volunteers' intentions to continue volunteering in that organization. Finally, Skoglund (2006) found that providing volunteers with social support, training and professional development reduced turnover and influenced their decision to remain with the organization. Given the centrality of

volunteers, it is essential that NPOs understand how SHRM can be applied to volunteers. In the following section, we discuss the dominant approaches to SHRM research and their implications for volunteer management.

Universalistic, Contingent and Configural Adoption in NPOs

Traditionally, strategic HR researchers have adopted three different perspectives to explain the relationship between HR systems and organizational performance (Delery & Doty, 1996). One particularly influential perspective is the universalistic approach, which prescribes a set of “best practices” that should be applied uniformly to all organizations for high performance (Delery & Doty, 1996; Hager & Brudney, 2015; Martin-Alcazar, Romero-Fernandez & Sanchez-Gardey, 2005). These practices include incentive pay (Pfeffer, 1994), certain methods of recruitment and selection (Terpstra & Rozell, 1993), comprehensive training (Russell, Terborg, Powers, 1985) and performance appraisal (Borman, 1991).

Another major theoretical perspective that has been emphasized in SHRM research is the contingency approach, where theorists contend that the relationship between the HR system and organizational performance is contingent on a third variable, such as organizational context (Batt 2000; Lengnick-Hall & Lengnick-Hall, 1988; Schuler & Jackson, 1987). As such, this perspective denies the existence of “best human resource practices” that are expected to lead to superior performance under any circumstances. For example, many contingency theorists propose that the fit between HR practices and business strategy is critical for superior organizational performance (Delery & Doty, 1996).

The third perspective, the configurational approach, conceptualizes HR systems as a set of multidimensional elements that can be combined in different ways to enable an organization to achieve its goals (Delery & Doty, 2006; Hager & Brudney, 2015). Several configural theorists have attempted to develop *a priori* typologies that represent different ideal possibilities for managing human resources (Delery & Doty, 1996; Lepak et al., 2006; Martin-Alcazar et al., 2005). Arthur (1992) suggested that the closer an organization’s HR practices resemble the correct prototypical system for its business strategy, the greater the performance gains. Again, this approach rejects the “best practice” paradigm and advocates for HR systems that are tailored to specific organizational contexts.

The universalistic approach dominates volunteer management in NPOs, where a variety of models have been advanced, all of which prescribe a core set of “best practices” including recruitment, selection, placement, orientation, training, supervision, recognition, and evaluation (Hager & Brudney, 2015). Moreover, these practices are sanctioned by various external agencies (e.g., Canadian Code for Volunteer Involvement and the United Kingdom Accreditation Standards), and researchers (e.g., Hager & Brudney, 2008). However, several scholars (e.g., Hager & Brudney, 2015; Rehnberg, 2005; Studer & von Schnurbein, 2013) have criticized the assumptions underlying these

widely endorsed “best practices”, arguing that they may or may not apply to all organizations, and as such may not translate into strategic outcomes for all organizations (Chadwick-Coule, 2011; Hager & Brudney, 2015).

Specifically, Macduff, Netting and O'Connor (2009) argue that different social missions generate different organizational contexts that require different HR systems (Hager & Brudney, 2015). They contend that while “best practices” can be fruitfully applied to ‘traditional volunteer programs’, which are based on a business-type human resource model, this environment only represents a subset of a range of possible NPO contexts. Of particular significance to our study, Macduff et al., (2009) noted the growing trend in episodic, short-term, and event-based volunteerism, which might require fundamentally different HR systems and practices from those advocated as “best practices”. As such, these “best practices” may have little or no meaning in these contexts. For instance, the authors pointed out that in social change volunteer programs, volunteers are conceived more as “activists”. Therefore, while their recruitment may resemble more of ‘traditional volunteers’, selection practices that involve “interviewing” for “positions” do not fit the social change program model. Thus as a “best practice”, interviewing may be redundant or irrelevant for this kind of volunteer program. Indeed, based on the same reasoning, McCurley and Ellis (2003) questioned the validity of current SHRM models used in the field. The above arguments served as an impetus for the current exploratory study, where we examined the nature of HR practices that emerged from an NPO context that relies heavily on volunteers that are episodic and short-term.

Mission-Driven Strategic Human Resource Management and the Ability-Motivation-Opportunity Framework

We draw on the ability-motivation-opportunity (AMO) framework (Bailey, 1993) as the theoretical underpinning for our model and for classifying the HR practices that emerged from our study, Figure 1. According to the AMO framework, to maximize employee performance, HR systems should be designed to enhance individuals’ ability, motivation and opportunity to contribute (e.g., Jiang, Lepak, Hu, & Baer, 2012). Drawing on this framework, Lepak and colleagues (2006) outlined a typology to categorize HR practices into three dimensions - skill-enhancing HR practices (e.g., ‘comprehensive’ recruitment, ‘rigorous’ selection, and ‘extensive’ training); motivation-enhancing HR practices (e.g., performance management, competitive compensation, incentives and rewards, extensive benefits, promotion, career development and job security) and opportunity-enhancing HR practices (e.g., flexible work design, work teams, employee involvement and information sharing) (Lepak et al., 2006; Jiang et al., 2012).

Building on Lepak and colleagues’ (2006) suggested typology; we develop a more nuanced framework to reflect the centrality of the organization’s mission to HR practices for volunteers. We define *mission-driven* HR-enhancing practices as HR

practices that are anchored to the organization's mission and especially relevant for volunteers. For example, with regards to skills-enhancing practices, while 'comprehensive' recruitment might be relevant to NPOs, the type of recruitment strategies that would be effective in for-profit organizations may be less effective or practical for recruiting volunteers. Similarly, 'rigorous' selection practices may be different or even irrelevant for the selection of some types (e.g., episodic and or short-term) of volunteers. Finally, training that centers on the organization's mission may be more important in NPOs rather than a focus on 'extensive' training.

Using an inductive approach for this study enabled us to explore the types and nature of HR practices that emerged in the nonprofit context we studied. Focusing on volunteers as ambassadors for the organization coupled with the fact that HPWS may be implemented and perceived differently by different employees, also underscores the importance of paying particular attention to volunteers' actual experience of the HR practices. Accordingly we examined the mission-driven HR practices from the volunteers' perspective.

RQ1 What kinds of HR work practices unfold in NPOs and how do they influence volunteers' experience?

Diversity Climate as a Mediator between SHRM and Volunteer Outcomes

The extant literature in SHRM has made considerable progress in linking HPWS and HR systems to firm performance (Jiang et al., 2012). However, despite this progress, research on the processes linking these HR practices to organizational outcomes has received less attention and still remains a black box. Drawing from the organizational climate literature, researchers have suggested that HR practices can foster individuals' shared perceptions of the organization, and that this in turn can influence employee performance. For instance, a recent study by Chuang and Liao (2010) found that HPWS fostered two strategically important climates: concern for customers and concern for employees. These climates were linked to three organizational outcomes: service performance, helping behavior and marketing performance.

In this study, we also draw from the organizational climate literature and propose a mediation, based on the idea that *mission-driven* HR practices can play a key role in nurturing the diversity and inclusion climate of the organization, thereby fostering volunteer retention outcomes. We elected to examine the diversity and inclusion climate because of its particular relevance to volunteers' recruitment and retention. According to a recent article by Cooper (2012) projections from the 2010 Census results indicate an increasingly diverse US population. This trend, coupled with increasing globalization, foreshadows a more competitive marketplace where the attraction and retention of an adequate pool of volunteers will necessitate organizations to incorporate diversity into SHRM systems (Martín-Alcázar et al., 2011). Understanding how HR systems can promote diversity and inclusion in an NPO is the focus of our second research question:

RQ2 How do mission-driven work practices nurture an inclusive environment and how does this contribute to retention and recruitment?

METHOD

The context for our case study was a Christian nonprofit organization, pseudo-name ABC, based in the U.S., committed to ameliorating hunger around the world. ABC purchases raw food ingredients from donations it receives, and it relies on volunteers to pack these into nutritiously fortified meals, which are then shipped to different countries around the world where a need has been identified. ABC has several permanent locations in three different states in the U.S. and in addition, it organizes various events around the country throughout the year, where institutions can host to pack the meals on their sites. Employees of ABC will set up and dismantle the packing stations. ABC has been in operation for over twenty years and during that time it has seen the number of meals packed grow exponentially. Meals packed at the permanent and non-permanent sites surpassed one billion in 2015, and ABC is considered one of America's fastest-growing charities.

While ABC employs a handful of permanent staff, volunteers are the mainstay of this organization. ABC volunteers can be classified as episodic (volunteering sporadically as they have time) and short-term (volunteering for 1.5-2.0 hour sessions). At a time when many nonprofit organizations are experiencing a decrease in the number of volunteers (Rogers et al., 2013), ABC saw a rise of over 400% in the annual volunteer rate in a twenty-year period. These characteristics of ABC positioned it as an ideal organization to study the influence of mission-driven HR practices on volunteer recruitment and retention. Volunteers need to first sign up on the website for an open slot at any of their permanent or non-permanent sites. Each packing session begins with training/orientation before volunteers are allowed to pack the meals. The packing site is comprised of several packing stations where volunteers work as members of a team to pack the meal. Volunteers work in teams either with people they came with or with those they met there. Each session lasts between one and a half to two hours. At the end of packing, the volunteers help to clean up and are invited to attend a debriefing session where they get to hear where there meals are going, how many meals they packed and how many people this can feed for a year.

We used a mixed method approach to gain both breadth and depth in the data collection. First we gathered qualitative data, including publications, e-mails to volunteers, website, onsite observations and 12 in-depth semi-structured interviews. This qualitative approach is ideal for gaining insights about exploratory questions such as our research questions (Yin, 1994; Eisenhardt & Graebner, 2007). Case studies can be used for exploratory, explanatory and descriptive purposes, and are particularly useful for answering "what" and "how" questions that are exploratory in nature (Yin, 2003). Construct validity was satisfied through data triangulation from the multiple data sources.

Following a purposeful sampling approach (Lincoln & Guba, 1985), interviews served as our primary source of data in the current analysis. We interviewed 12

volunteers, selected to represent different identity groups (e.g., age, race, religion, and sex). We asked each participant questions about their perceptions of the various HR practices, the work atmosphere and their likelihood to return and or invite others to volunteer. The semi-structured design allowed for comparisons across interviews while follow-up questions allowed us to capture unique perspectives offered by specific individuals that shed light on their volunteering experience. All interviews were audio recorded and later transcribed. Our data analysis process involved coding interview transcripts and other qualitative data. We followed template analysis procedures outlined by King (1998).

In addition to the qualitative data, to enhance our methodology, we also administered an online survey to 150 volunteers. Volunteers were purposely selected to participate in the study to obtain a diverse sample by age, sex, religion and race. Seventy-one percent were females, 72% Whites, 9% Blacks, 3% Hispanics, and 3% Asians. Regarding religion, 76% were Christians, about 4% were non Christians (Muslims, atheists, Jewish) and about 20% did not respond to this question. There was a range of different ages that participated in the survey. The breakdown is as follows: Wireless (14-15) 5%; Millennials (16 – 25), 40%; Gen Y (26 – 50) 28%; Baby Boomers (51- 70), 17%.

Of the 150 volunteers invited to participate, 137 agreed to participate, and 133 of these surveys were usable, giving us a response rate of 88%. Participants that agreed to participate in the study were given a link to a SurveyMonkey © via their e-mail which included a list of questions informed by our interviews and the literature including 13 items related to recruitment, training/ orientation, performance management and reward/recognition, from Cuskelly et al. (2006). Participants were also asked questions related to job design, recruitment of other volunteers and retention. Demographic data for each participant were captured by asking them questions related to their age, sex, (dis)ability, religion and race. Frequency data analysis and analysis of variance (ANOVA) were conducted using SPSS.

RESULTS

The surveys indicated that several of the HR practices associated with HPWS were also present in the nonprofit organization. ANOVA of the means for the different groups revealed that there were no significant differences between volunteers' perceptions of various HPWS at ABC as a function of age, sex, religion and race (see Table 1 for means by identity group and ANOVA results). In addition, our analysis also showed that there were no differences in volunteers' outcomes based on identity group membership. Volunteers' commitment, intention to remain, intention to recruit others to volunteer at ABC, and satisfaction with their volunteering experience, were similar for all volunteers irrespective of the identity group to which they belonged (see Table 2). Table 3 shows the prevalence of different HR practices in ABC as perceived by the volunteers participating in the study. Over three-quarters of the volunteers that participated in the study agreed that these HR practices were present in ABC except for recruitment where

only 44% of the participants agreed that comprehensive recruitment practices were present.

Our qualitative analysis of the interviews, observation notes, website statements and emails from the organization revealed that not only were these HPWS present, but that they were infused with the organization's mission, which contributed positively to the volunteers' experience and their willingness to return and recruit others to volunteer. In Table 4, we provide an overview of the data structure parsed from the interview notes and examples of quotes that illustrate the different types of HR practices. Below, we discuss both the quantitative and qualitative results in greater detail as they relate to our two research questions.

Mission-Driven Skill-Enhancing HR Practices

According to Lepak et al. (2006), 'comprehensive' recruitment, 'rigorous' selection practices and 'extensive' training are important skill-enhancing HR practices to ensure that an organization can attract, select and develop employees so that they possess the appropriate ability – valuable and rare – to give the organization a competitive advantage. As mentioned above, survey responses showed that out of all the HR practices measured, less than half the volunteers (44%) believed ABC used a comprehensive recruitment process. A closer look at the results reveal that 'word of mouth' was by far the most common recruitment source for volunteers at ABC (71%) compared to the second most common (match between skills, interests, experience, and role) where only 45% of the respondents agreed with the statement.

For NPOs that rely heavily on volunteers, sustained advantage can be gained by their ability to leverage institutional and community connections in order to recruit potential volunteers for their organization (Laczo & Hanisch, 1999). ABC was particularly successful in partnering with institutions and getting members of the community involved with the mission, which provided them with access to a large pool of potential volunteers:

"I have gone a lot of times, I have gone with my girls scout group, I have gone with church, gone with confirmation,I've gone many times because my church is very involved. And also the high school is very involved, everyone is very involved."

[White, GenX, Female, Christian]

In addition, NPOs can also use a 'values' approach to differentiate themselves from others and thereby gain competitive advantage (Akingbola, 2013). Irrespective of how volunteers learned about the organization, ABC's mission was instrumental to their recruitment as illustrated by the following quotes:

“It was a requirement that I volunteered as part of the football team..... It was very community-driven so you felt compelled to participate and to offer your services for a cause that was obviously very noble and genuine.”

[Black, Millennial, Male, non-religious]

“Our pastor had heard about their mission before they had come to Illinois.... so we all drove up to Zion – there were hundreds of us. They had set it up. It was a really exciting thing to do.Our pastor was very passionate about it and he still is. It sounded really cool, so I brought my kids and we all went up.”

[White, GenX, Female, Christian]

“I actually heard about it from one of my friends She just told me that they would give the food to under-privilege countries. I realized how good of an organization it actually was and that it was benefitting people.”

[Black, Wireless, Female, Christian]

While for-profit organizations emphasize ‘rigorous’ selection practices to ensure that the right type of people with the right knowledge, skills and abilities are selected for the organization, ABC had less stringent selection practices. Information provided on their website illustrates these lenient requirements and contributed to their ability to recruit a diverse range of people. In fact, besides the “minimum age for volunteering [of] 5 years old,” the website states that “All a volunteer needs to do is to sign up”. The website is very explicit about the organization’s willingness to accommodate a diverse group of people to serve and this is at the core of their mission as illustrated by some of the statements culled from their website below:

“We reserve one of our most important tasks for sit-down volunteers.”

“Each site is accessible and has a job for everyone!”

“We welcome people of every faith to participate in our life-giving mission.”

The following statement by one of the volunteers interviewed sums it up:

“For me it is about diversity. Everyone could help no matter how old, or how young.no matter their religious background, LGBT or not. In some organizations, there is some kind of culture and you may feel that you don’t belong. At ABC, they did not care who you were, or what your background was - you felt that you were just there to make a difference.”

[Male, Millennial, Christian, White]

The orientation and training at ABC provided volunteers with enough information so that they felt competent to carry out their tasks efficiently. Ninety three percent of the

participants surveyed agreed that the training/orientation session adequately prepared them to carry out their tasks at ABC. In addition, the survey revealed that volunteers believed that they received adequate support and resources to carry out their tasks. Unlike the recommendations for ‘extensive’ training for for-profit organizations, the training at ABC was concise and comprehensive, which was valued by the volunteers. Not only were the training and orientation comprehensive and concise, volunteers also found them to be motivating as the following quotes illustrate:

“I think the orientation is short enough and I think they are enthusiastic, which is really good. I think it is a good part.”

[White, Gen X, Female, Christian]

“...and because everything was so very well explained we could grab items that were needed, all very easy to do and even the clean up was no problem at all. It was all very well done, well organized.”

[White, Baby Boomer, Female, Atheist]

In addition to providing clear directions and information on the task ahead, the orientation/training session also showed videos about the organization’s mission and some of the beneficiaries of the meals. Many volunteers found this to be a very meaningful part of their volunteering experience, inspiring them to work hard at their assigned tasks and contributing to their willingness to return (retention) as illustrated:

“During their preview they went over how they packed food for people in other countries ... really motivates me to go back there time and time again.”

[Black, Male, Wireless, Christian]

“I think it is really important... the orientation, I think it is important that people hear about where the food is going and what a difference it can make.....I have enjoyed it.”

[White, Female, Gen X, Christian]

Mission-Driven Motivation-Enhancing HR Practices

Motivational tools such as reward systems, career opportunities and job security would be ineffective for motivating non-paid volunteers that are not permanent members of an organization (Laczo & Hanisch, 1999). NPOs therefore need to consider alternative tools that would be effective in their context. Cuskelly and colleagues (2006), suggest using performance management and recognition for motivating volunteers, however, there was no evidence that these predicted volunteer retention. At ABC, performance management was implemented to some extent as evidenced by the results of our survey, where 75% of the participants agreed with the statements. Specifically, it appeared that

ABC staff were effective at monitoring their performance (83% agreed) and providing feedback (75% agreed) but they were less effective in addressing performance problems. Analysis of the interview notes, suggests that the staff at ABC provided enough support, so that volunteers felt that they could ask for help if needed, but not too much, so that they did not feel micromanaged. This supports findings in the empowerment literature, where both feedback and autonomy are important tools in motivating individuals (Speitzer, 2005)

“I liked that they were in the room with us, even though they were not micromanaging or supervising the individual groups, they were visible and they were so just in case there were questions such as what do I do now, oh I have forgotten this and that – so that was good, that was a good experience. They did not micromanage the thing but they were available and helpful if we needed them.”

[White, Baby Boomer, Female, Atheist]

Regarding recognition the results were mixed. Based on the survey results, over three-quarters (78%) of the respondents agreed that the organization recognized their efforts. However, while the majority (93%) agreed that the staff thanked them, only 62% felt that the organization publicly recognized their efforts. Most of the volunteers interviewed did not recall staff giving them any recognition for their efforts. However, many were not expecting it especially if they were new to the organization: *“Staff did not do anything to recognize me but I was not expecting it. I was just there once for two hours, I did not put in significant hours.”* Long-term volunteers, however, felt that the organization could do more: *“Don’t do anything to recognize [us] – nothing. Could just send an e-mail or put it on Facebook that you volunteered”*. Despite the lack of recognition, it did not seem to impact the volunteer’s experience negatively. As one volunteer put it: *“[Recognition to me was] seeing how much food we actually packed during a short time period. I felt that we actually made a big contribution.”* One volunteer however, shared an e-mail she received from ABC that illustrates their recognition efforts:

“Happy Leap Day! We wanted to take this extra day of the year to say THANK YOU for all you do to feed kids! Thanks for making saving lives a priority. We really appreciate you!”
[e-mail sent to volunteer on Feb 29, 2016]

Mission-driven Opportunity-enhancing HR practices

Work design, work teams, employee involvement and information sharing are a few examples of the opportunity-enhancing HR practices that have been found to be effective in for-profit organizations. Many of these were also present at ABC. Specifically, ABC was able to integrate a flexible work design into a lively and

comfortable work environment which provided opportunities for volunteers not only to interact with others but also to participate in a meaningful endeavor. As we can see from Table 1, Over 80% of the participants agreed that ABC provided these practices. Our interviews revealed that the meaningfulness of the tasks that volunteers were performing, which was linked to the organization's mission, was by far the most motivating aspect of the volunteers' experience and their willingness to return and be ambassadors of the organization as illustrated by the following quotes.

"It re-conceptualizes the way that I personally view philanthropy in that that organization is the only one that I know or that I have participated in the past that I know exactly what I am doing to impact a very concise and defined cause and so in the future, I feel as though my volunteering efforts will be focused in on causes that I am having a direct impact on and I can measure the impact of my input. It has given me a shining model of what a true charitable organization should be.."

[Black, Millennial, Male, non-religious]

"They emphasize how big of an impact they have on children around the world. I felt that my actions were actually making a difference around the world."

[White, Baby boomer, Female, Atheist]

"Often times we do not think about the fact that we have food and that we live in a privileged area and are able to get food so easily. I think we often forget thatmakes you more aware and grateful for what you have and just kinda put things into perspective like it is not just America, there are other countries. We have to think about those countries too and help those people in need."

[Black, Wireless, Female, Christian]

There were also various elements of the job design and work environment that influenced volunteers' experience and motivated them to return and recruit others. Besides several volunteers noting that the work environment was very "fun" and "energetic", the following quotes illustrate how the job design contributed positively to their work experience.

Working in teams: *"I definitely like going with groups of people. I don't think I would just show up. I don't know you could do that . definitely it is a great... like a church or swim team, it is a good way to meet people or get to know them better."*

Energetic environment: *"I always like when they play music, I think having people cheering for all the boxes....keeps the energy up."*

Flexible design: *“I like how it is arranged, it allows for people to do different things.”*

Efficient and functional: *“It was clean, it was very well set up, all the stations everything was there... It was all very well done, well organized.”*

Experiential: *“I do like that the hands-on making food to send as opposed to just raising money to send.....it is fun.”*

Mission-driven HR practices and an inclusive climate

At the core of ABC’s mission is their commitment to diversity as illustrated by this statement, one of several found on their website (see quotes above): *“Our food is given to the neediest children, regardless of their faith or whether a Christian message is delivered. All of God’s children deserve to be fed.”* Not surprising, ABC volunteers range in age, from as young as five years-old to as old as seventy-six, religious background, sex, race, abilities etc. The mission-driven HR practices implemented by ABC are fundamental to nurturing an inclusive climate as volunteers remarked:

“Sometimes I am leery about doing things where they just serve Christians. I don’t want it to be that you have to profess Christianity to benefit from the services or to volunteer there.”

[Recruitment]

“I know whenever I’ve gone especially if there are new people and they are really concerned.... oh I can’t stand and when they [the staff] come out and say that you can put labels on and sit there ... And there are always guys you know they want to carry the boxes. I do like that they explain ahead of time that there are different roles for people and I like that they have different roles depending on what you want to do.”

[Orientation/Training]

“Every time that I have done it I’ve always done it with kids – it is nice because there are jobs where everyone can do. And also the kids always end up swapping out. It is important, because after you have measured for a while, then you can weigh, I think it is good, I have been there with people whose kids had learning difficulties and they seem to be able to work fine... they found different jobs for them.”

[Job Design]

Interestingly, the inclusive environment also accommodated different personality types as illustrated by these two volunteers:

“I am not an easy socializer ..I mean if I get a task, I wanna do a good job and I don’t want to stand around chatting... I wanna get it done and I am kinda getting competitive – I want to be the one who gets the most boxes done. So I am not there to talk It was not the social aspect for me because I did not know anybody else.... it was easy to do and it was a very welcoming environment.”

[White, Baby boomer, Female, Atheist]

“Fun to work with my family and other people. Nice way to know other people. It is a nice way to build community.”

[White, GenX, Female, Chrstian]

Lastly, the positive experience of volunteers at ABC directly impacted their willingness to volunteer again and to become ambassadors for the organization as noted by this volunteer:

“My role is to spread the message, make the food be part of the event and also to raise money”.

Another volunteer echo’s this sentiment:

“Part of my mission is to also raise awareness of the conditions of these children and so just by bringing in everyday volunteers that could have different backgrounds, different ages, could really help to bring awareness to their mission and to the situation around the world.”

The interviews results were also supported by our survey findings which revealed a high volunteer satisfaction rate (95%). Ninety-four percent of those surveyed intended to return and refer someone to volunteer at ABC.

CONCLUSION

Our goal in this study was to use strategic human resource management theory to investigate the nature of HR practices that volunteers perceive in a non-profit organization. Our findings provided support for the model proposed further illuminating the relationship between HPWS and organizational performance. Specifically, our study makes several important theoretical and practical contributions. We also discuss these as well as some of the strengths, limitations and suggestions for future studies.

Theoretically, this study makes several important contributions. First, we contribute to the SHRM literature by extending the external validity of SHRM research to a nonprofit context. Specifically, the A-M-O framework outlined by Lepak and colleagues (2006), one of the major models used in SHRM research (Jiang et al., 2012), received support in our study. Results from both our quantitative and qualitative analysis suggests that the HR practices that volunteers perceived could be classified into three domains – ability, motivation and opportunity. However, not all the HR practices that are associated with HPWS were present in our organization. Besides the more common HR practices that have been found in previous studies involving volunteers, such as pay for performance, others such as selection were also absent. This finding supports the sentiments of some researchers on the futility of a universalistic approach that prescribes a set of best HR practices for all organizations, an approach that has dominated SHRM research in NPOs (Hager & Brudner, 2015; McCurley & Ellis, 2003). Our findings underscore the importance of aligning HR to each unique organizational context and business strategy. The qualitative analysis of our data provided us with insights on the nature of these HR practices. Volunteers responses suggests that many of the HR practices that were present were not only high performance practices that are present in other for profit organizations (e.g., flexible work design), but they were also mission-driven. The value of the volunteer work was an important ingredient in the volunteers' experience and their subsequent willingness to return and recruit others to volunteer.

Our study also makes important contributions to the diversity literature by answering calls to integrate it with SHRM literature (Shen et al., 2014). The results of our qualitative analysis suggests that HPWS, especially when they are mission-driven can foster an inclusive environment where individuals, irrespective of sex, age, race, religion and (dis)ability, believe they can contribute to the organizations' goals. As organizations in general become increasingly diverse, creating and maintaining an inclusive environment will become even more important. Organizations that can craft HR systems that promote inclusiveness are likely to have higher retention rates and highly committed employees.

Practically, the results of this study underscore the importance of HR practices for managing volunteers and increasing volunteer motivation and retention. Our results suggest that there is value in NPOs investing in HR practices and strategically aligning it with their mission and objectives. For example, while ABC did not advertise much, which is a costly practice especially for NPOs with limited funds, they tried to create a fun and meaningful experience for their volunteers, which was instrumental in them returning and recruiting other volunteers. Organizations need to be able to leverage their strengths and be aware of their weaknesses as they design their HR systems. Also, our results can be useful to organizations, both for-profit and NPOs, that are trying to create an inclusive environment for their employees or volunteers.

One of the major strengths of this research is the mixed method design of the study. It allowed for a broad and deep approach that allowed the triangulation of qualitative and quantitative data. Most studies on volunteer recruitment and retention

have used mainly qualitative methods limiting their generalizability. This study addressed this shortcoming by including quantitative data. Also, unlike most SHRM studies that focus on the organization's perspective of HR practices provided, in the current study we investigated the HR practices from the volunteers' perspective. This answers calls in the literature (Liao et al., 2009) for more SHRM studies from the individuals' perspective since volunteers' perceptions and experiences may differ.

The study also has several limitations. This was a cross-section study, which does not allow us to establish causality between HR practices and volunteers intention to return and recruit. Also, our data was based on self-reports, which increases the possibility for common method bias to influence our results. However, the risk of this was greatly reduced by obtaining data from several sources as we mentioned above. Also, since the volunteers were purposefully sampled, it is possible that they do not represent the prototypical volunteer. However, since data obtained from non-volunteer sources corroborated our findings from the interviews, we believe this effect is marginal. Finally, data was only collected from an organization with episodic and short-term volunteers and therefore the results may not be generalizable to other types of NPOs.

Our suggestions for future studies relate to many of the limitations identified above. First, we suggest that future studies should examine the phenomenon using a longitudinal approach to address the issue of causality. Secondly, we suggest collecting data from other sources besides volunteers such as the permanent employees, external agencies the NPO partners with, and beneficiaries of the service(s) provided. Third, data should be collected from other NPOs especially those with different types of volunteers to see what patterns emerge and to increase the generalizability of our findings. In particular, it would be worthwhile to compare several organizations using data from individuals that volunteer at different NPOs.

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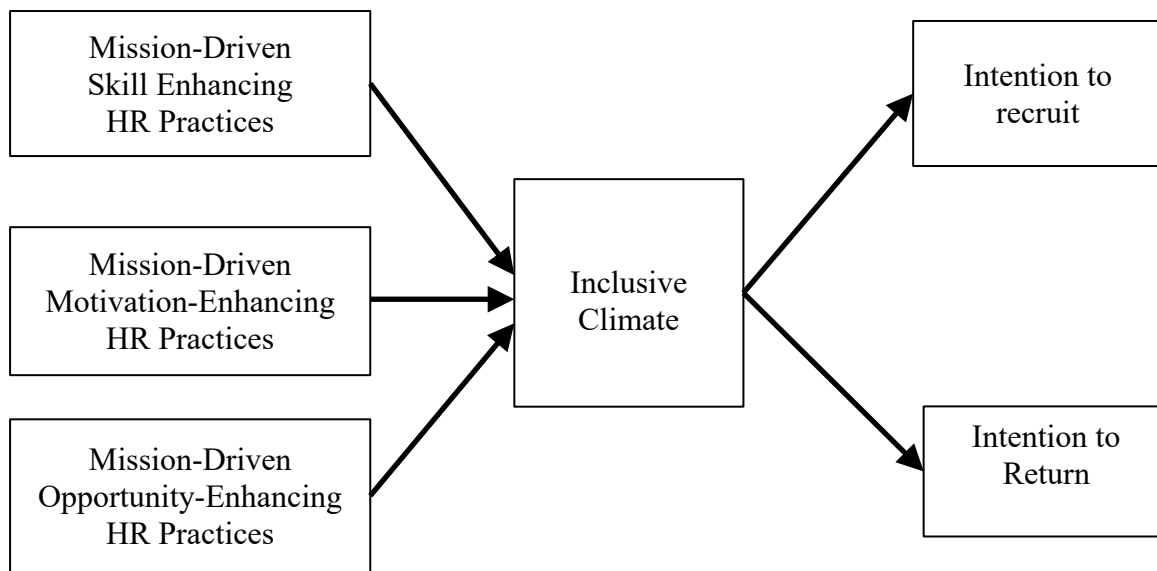


Figure 1: Proposed Model of the relationship between mission-driven HR practices, inclusive climate and retention outcomes – intention to recruit and intention to return.

Table 1: Means for each HR practice by Identity Group and ANOVA Results (F-Values and Significance)									
Identity Group	Skills Enhancing HR Practices		Motivation-Enhancing HR Practices		Opportunity-Enhancing HR Practices				
	Recruitment	Training/Support	Performance Management	Recognition	Task Significance	Work Evt. (lively)	Work Evt. (comfortable)	Work Design	Team Work
Sex									
Male	4.81	6.38	5.52	5.81	6.33	5.89	5.82	6.01	6.07
Female	5.21	6.25	5.57	5.72	6.22	6.04	5.80	6.00	5.83
<i>F-Value</i>	1.36 (<i>n.s.</i>)	.40 (<i>n.s.</i>)	.68 (<i>n.s.</i>)	.17 (<i>n.s.</i>)	.24 (<i>n.s.</i>)	.47 (<i>n.s.</i>)	.01 (<i>n.s.</i>)	.01 (<i>n.s.</i>)	1.31 (<i>n.s.</i>)
Religion									
Christian	4.27	6.31	5.53	5.72	6.29	6.06	5.81	6.06	6.43
Non-Christian	3.65	6.11	5.36	5.70	6.11	5.64	5.56	5.67	6.00
<i>F-Value</i>	.13 (<i>n.s.</i>)	.24 (<i>n.s.</i>)	.75 (<i>n.s.</i>)	.32 (<i>n.s.</i>)	.89 (<i>n.s.</i>)	.99 (<i>n.s.</i>)	.32 (<i>n.s.</i>)	1.14 (<i>n.s.</i>)	1.14 (<i>n.s.</i>)
Race									
White	4.20	4.28	5.72	5.84	5.96	5.87	5.94	5.33	6.10
Black	4.06	4.18	4.90	5.00	5.86	5.27	5.18	4.45	5.34
Hispanic/Latino	3.18	3.50	4.75	6.50	6.25	5.75	4.50	4.25	6.17
Asian	4.56	4.50	5.33	6.25	5.25	5.75	5.50	5.50	5.67
<i>F-Value</i>	.82 (<i>n.s.</i>)	.32 (<i>n.s.</i>)	1.67 (<i>n.s.</i>)	1.64 (<i>n.s.</i>)	.94 (<i>n.s.</i>)	.49 (<i>n.s.</i>)	1.78 (<i>n.s.</i>)	1.72 (<i>n.s.</i>)	1.37 (<i>n.s.</i>)
Age									
Wireless	3.75	6.83	5.16	4.00	6.50	6.16	5.87	6.15	6.17
Millennials	4.03	5.98	5.81	5.68	6.22	5.67	5.57	5.86	5.90
Gen Y	4.25	6.39	5.76	5.77	6.21	6.22	6.05	6.14	6.15
Baby Boomers	4.18	6.46	5.68	5.53	6.20	6.08	5.76	5.98	5.91
<i>F-Value</i>	.28 (<i>n.s.</i>)	.13 (<i>n.s.</i>)	.33 (<i>n.s.</i>)	1.33 (<i>n.s.</i>)	0.04 (<i>n.s.</i>)	2.23 (<i>n.s.</i>)	1.26 (<i>n.s.</i>)	.78 (<i>n.s.</i>)	.54 (<i>n.s.</i>)

Table 2: Means for each outcome by Identity Group and ANOVA Results (F-Values and Significance)				
Identity Group	Volunteer Outcomes			
	Commitment	Intention to return	Intention to refer someone to volunteer	Volunteer Satisfaction
Sex				
Male	6.19	5.96	6.00	6.16
Female	6.34	6.14	6.17	6.33
<i>F-Value</i>	1.04 (<i>n.s.</i>)	.87 (<i>n.s.</i>)	.52 (<i>n.s.</i>)	.65 (<i>n.s.</i>)
Religion				
Christian	6.24	6.44	6.37	6.42
Non-Christian	5.58	6.00	5.92	6.00
<i>F-Value</i>	2.52 (<i>n.s.</i>)	2.59 (<i>n.s.</i>)	1.76 (<i>n.s.</i>)	1.84 (<i>n.s.</i>)
Race				
White	6.40	6.39	6.44	6.00
Black	5.84	6.43	6.46	6.51
Hispanic/Latino	6.30	6.06	6.03	6.34
Asian	6.12	6.33	6.51	6.32
<i>F-Value</i>	.64 (<i>n.s.</i>)	.82 (<i>n.s.</i>)	1.26 (<i>n.s.</i>)	1.96 (<i>n.s.</i>)
Age				
Wireless Millennials	5.99	7.00	7.00	6.50
Gen Y	6.00	6.29	6.29	6.07
Baby Boomers	6.15	6.38	6.44	6.23
	6.13	6.34	6.37	6.03
<i>F-Value</i>	1.26 (<i>n.s.</i>)	.78 (<i>n.s.</i>)	.45 (<i>n.s.</i>)	.33 (<i>n.s.</i>)

Table 3: Summary Statistics of Survey Results (N=133)	
Variables	Frequencies % of participants that agreed with statement
Skills-Enhancing HR Practices	
<i>Recruitment</i>	44
Word of mouth	71
Advertisement	19
Match between skills, interests, experience, and role	45
<i>Training/Orientation/Support</i>	93
Provided adequate training/orientation to carry out tasks	93
Provided adequate support	92
Provided adequate resources	95
Motivation-Enhancing HR Practices	
<i>Performance Management</i>	75
Monitored performance	83
Provided feedback on performance	75
Addressed performance problems	68
<i>Recognition</i>	78
Thanked volunteers	93
Publicly recognized volunteers	62
Opportunity-Enhancing HR Practices	
<i>Task significance</i>	88
<i>Work environment (lively atmosphere)</i>	87
<i>Work environment (comfortable)</i>	89
<i>Flexible work design</i>	89
<i>Working in teams</i>	88
Opportunity to work with friends, family, colleagues etc.	93
Opportunity to get to know friends, family, colleagues better	84
Opportunity to meet and work with new people	87
Outcomes	
<i>Commitment</i>	82
<i>Intention to return</i>	94
<i>Intention to refer someone to volunteer</i>	94
<i>Volunteer satisfaction</i>	95

Table 4: Overview of Interview Data Structure with Illustrative Quotes	
Mission-driven HR Practices	Illustrative Quotes
Skills-enhancing	<p><i>Recruitment</i></p> <p>“Everyone could help no matter how old, or how young. No matter their religious background, LGBT. In some organizations, there is a some kind of culture and you may feel that you don’t belong. At ABC, they did not care who you were, or what your background was - you felt that you were there to make a difference.”</p> <p><i>Training/Orientation/Support</i></p> <p>“The training session was short and very clear. They used images and videos which made it very easy even for the young kids to follow.”</p>
Motivation-enhancing	<p><i>Performance Management</i></p> <p>“There were people around so you could ask questions without stopping production.”</p> <p><i>Recognition</i></p> <p>“The staff recognizes my volunteer efforts by saying they are glad I helped. That is good enough for me.</p>
Opportunity-enhancing	<p><i>Task Significance</i></p> <p>“The work is all done without pay. ...goal is compelling. It reinforces that we have so much..... That we can share what we have with others. Working here shows compassion, we have food, being without food would be scary, makes you think and count [your] blessings.“</p> <p><i>Work environment (lively atmosphere)</i></p> <p>“I went with my brother very early in the morning and I admit, we were kind of sleepy when they were doing the orientation. But once the packing started, the music and the energy was so great it motivated us to work hard”.</p> <p><i>Flexible work design</i></p> <p>“It is so flexible, you can always fit it into your schedule. So if you work until 5:00 p.m. then you can go for the 7:00 session. It is not difficult and everyone can help.”</p> <p><i>Working in teams</i></p> <p>“I liked meeting new people and being able to help. “</p>