Marketing Management Journal

MARKETING MANAGEMENT JOURNAL

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Editorial: Issue Overview and the Introduction of Research Notes

The Current Issue:

In the present issue, five articles were accepted. These articles feature the wide scope of topics that fall within the realm of Marketing Management. I want to highlight several key takeaways I gleaned from each of these articles.

The lead article, "PLS-SEM: The Holy Grail for Advanced Analysis" by Matthews, Hair, and Matthews, provides an overview of important aspects to consider before using PLS-SEM. First, they compare differences between covariance-based structural equation modeling (CB-SEM) and PLS-SEM. They provide guidelines for when it is appropriate to use PLS-SEM over the traditional CB-SEM. The manuscript then focuses on how to use PLS-SEM to conduct mediation, moderation, multi-group analysis, and hierarchical component models. Overall, this manuscript will provide the Journal's readership with a solid platform to determine when PLS-SEM is the correct tool to use.

The second article, "Millennials' Purchasing Response to Firms' CSR Behavior" by Anderson, Dahlquist, and Garver, examines millennials' attitudes toward corporate social responsibility (CSR) behaviors relative to other product/firm attributes. This study uses a shopping simulation survey employing choice-based conjoint analysis and maximum difference scaling. The study finds certain millennials regard a firm's CSR behavior to be substantially more important than six other product attributes (including price and quality) when making a purchase decision. Results from this study are important for firms looking to develop and/or refine their CSR strategy. From an academic standpoint, this study advances the CSR literature, in addition to using a unique methodology to analyze the data.

The next article, "Examining the Effect of Humor in Environmentally-Friendly Advertising" by Griese, Alexandrov, Michaelis, and Lilly, examines how environmentally-friendly advertising encourages consumers to act in ways that preserve the environment. Specifically, the manuscript examines environmental promotion through humor using samples from China, Germany, and the United States. I find this study intriguing in its ability to examine differences between the three countries. Specifically, differences in the ability of each of the study's independent variables to predict both ad attitude and ad engagement are interesting. Further, the overall ability to predict the dependent variables across the three countries is drastically different. From a cross-cultural or cross-national managerial standpoint, this study has the potential to advance how humor is seen in advertising.

The article titled, "Sales Effort and Performance: Dark Side of Customer Product Knowledge" by Murshed and Sangtani, examines how salespeople have to allocate time and effort working with different types of customers. Specifically, the manuscript tests the interplay of sales effort and perceived customer product knowledge in relation to sales performance. The study first suggests that high product knowledge customers can do well with relatively little effort on the part of the salesperson; however, salespeople can benefit by expending more effort toward customers with low product knowledge. Overall, I find the examination of customer knowledge within a sales context to be useful for training both new and established salespeople, where they can be more adaptive to customer needs and wants.

The last article titled, "Organizing a Framework for Customer Value Management in Online Media Relationships" by Kukkonen, develops a conceptual model to examine customer value management for online news channels. The study deepens our understanding of the value creation of online customer relationships and suggests how *monetary, social, and visitor* value can be gained. The managerial contributions of the paper are building a holistic view of customer relationship value in an online context, recognizing the relational value components as one of the key aspects of online relationships, and in presenting nine manageable value-generating components.

New Members of the Editorial Review Board:

I am proud to announce several new members of the Editorial Review Board:

Kesha K. Coker - Ball State University

Scott B. Friend - Miami University

As submissions continue to increase in number and quality, I will continue to add new members to the Editorial Review Board. As can be seen, new Editorial Review Board members have strong records of research accomplishment and are able to review multiple topics and methods.

Research Notes:

In addition to regular and special section article submissions, the Journal will now accept submissions as research notes. Research notes conform to the same high standards as other submissions to the Journal, but are shorter in nature. Specifically, regardless of the type of submission, articles typically will include a strong theoretical foundation with testable hypotheses. Further, all manuscripts must have strong managerial implications. Unlike regular submissions, research notes are limited to 5,000 words, all inclusive. Further, research notes could have fewer hypotheses than a regular submission. For example, two or three well-developed hypotheses would fit well into the scope of a research note. Research notes could also be more limited in generalizability. For example, a study could focus on a single firm or a limited geographic area. While limited generalizability would be acceptable, authors would need to make a strong case as to how and why future studies would want to extend the generalizability of the study.

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Scope and Mission

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

Submission Guidelines

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

1. A file containing the cover page listing the manuscript title, each author's name, institution affiliation, mailing address, telephone number, and email address. If there are multiple authors, the editor will consider the author originating the manuscript submission the contact author unless otherwise noted.
2. A file containing the manuscript title, an abstract of no more than 150 words, keywords, and manuscript. Author identification or affiliation should not appear anywhere in this file.

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

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

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The editorial board reserves the right for stylistic editing of manuscripts accepted for publication in MMJ. Where major stylistic editing becomes necessary, a copy of the accepted manuscript will be provided to the author(s) for final review before publication.

Publication Information

The Spring issue each year will be published online on the MMA website upon completion of the issue. The fall issue will also be published online on the MMA website upon completion. A print edition containing the spring and fall issues of a volume will be printed upon completion of the fall issue. Each author of an article published in MMJ will receive one copy of the issue in which the article appears. General access to MMJ is available online at: http://www.mmaglobal.org/publications/mmj/current-past-issues/.

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PLS-SEM: THE HOLY GRAIL FOR ADVANCED ANALYSIS

LUCY MATTHEWS*, *Middle Tennessee State University
JOE HAIR*, *The University of South Alabama
RYAN MATTHEWS*, *RLM Enterprises, LLC

Advanced analytical techniques are reviewed for researchers wanting to expand their knowledge of how partial least squares structural equation modeling (PLS-SEM) facilitates better understanding of complex data relationships. We provide a brief overview of the differences between covariance-based structural equation modeling (CB-SEM) and PLS-SEM along with guidelines for the appropriate application of each. The focus is on mediation, moderation, multi-group analysis, and hierarchical component models. We also summarize several emerging analytical tools available with PLS-SEM. The ease of applying these advanced analytical techniques in many different research contexts makes PLS-SEM the "holy grail" for advanced analysis.

INTRODUCTION

For many researchers, keeping up with advanced methods can seem daunting. Learning new software along with the application and interpretation guidelines can sometimes be overwhelming. That is not the case, however, with partial least squares structural equation modeling (PLS-SEM), particularly using SmartPLS 3.0 (Ringle, Wende, & Becker, 2015). The recent rise in popularity of PLS-SEM can be attributed, at least in part, to the ease of understanding and applying the basic analytical tools of the method (Hair, Ringle, & Sarstedt, 2011). But learning to apply advanced methods such as mediation, moderation, multi-group analysis and more, is also relatively straightforward.

Most researchers are at least somewhat familiar with covariance-based structural modeling (CB-SEM), most often run with the AMOS or LISREL software. Few researchers are aware of and understand the fundamentals of variance -based structural modeling (PLS-SEM). The purpose of this paper is to introduce and provide an overview of the rapidly emerging method of variance-based structural equation modeling. In this paper, we first explain the differences in variance-based structural equation modeling (PLS-SEM) and the covariance-based CB-SEM method, and therefore the rationale for the selection of one approach over another. We then summarize several of the more advanced analytical tools available when applying PLS-SEM.

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PLS-SEM versus CB-SEM

When it comes to structural equations modeling (SEM), researchers have a choice of two methods: covariance-based SEM (CB-SEM; Jöreskog, 1978, 1993) and variance-based partial least squares (PLS-SEM; Lohmöller, 1989; Wold, 1982). A fundamental distinction between the two approaches is that CB-SEM is based on the common factor model, while PLS-SEM is based on the composite factor model (Hair, Hult, Ringle, & Sarstedt, 2017). With common factor models, the analysis is based only on the common variance in the data. Therefore, the solution begins by calculating the covariances between the variables in the study and only that common variance is used in the analysis (Hair, Matthews, Matthews, & Sarstedt, 2018; Sarstedt, Hair, Ringle, Theile, & Gudergan, 2016). With the composite factor model the constructs and their scores are represented by the total variance in the indicators, not just common variance that is the case with CB-SEM (Hair, Hult, Ringle, & Sarstedt, 2017). In addition, the statistical objectives are substantially different between the two methods. Using CB-SEM, the statistical objective is to estimate model parameters that minimize the differences between the observed sample covariance matrix, which is calculated before the theoretical model solution is obtained, with the covariance matrix that is estimated after the theoretical model solution is obtained (Hair, Sarstedt, Ringle, & Mena, 2012). If goodness of

fit is (GOF) demonstrated, the theoretical structural model is confirmed. But if GOF is not possible the model is not confirmed. In contrast, when using PLS-SEM, the statistical objective is to maximize the variance explained in the dependent variable(s) (Hair, Sarstedt, Pieper, & Ringle, 2012a). Thus, the focus of PLS is on optimizing prediction of the endogenous constructs and not on fit, which is the focus of CB-SEM. Moreover, PLS-SEM is a variance-based approach and the analysis does not start or end with a covariance matrix. Thus, a Chi-square type of GOF is not possible.

Determining when the application of each of the methods is appropriate is straightforward. If the focus of the research is theory testing and confirmation (Sarstedt, Ringle, Henseler, & Hair, 2014), then CB-SEM is the appropriate method. But if prediction, theory development and explanation are the focus of the research, then PLS-SEM is the more appropriate method. PLS-SEM is somewhat similar, both conceptually and practically, to using multiple regression analysis (Hair et al., 2011). But unlike multiple regression, PLS-SEM can be applied to better understanding more complex structural measurement and path models. At the same time, PLS-SEM and CB-SEM are both appropriate for metric data and reflective measurement models. But PLS-SEM can easily be used with formative measurement models, non-metric data (e.g., ordinal & nominal), continuous moderators, higher order models, when latent variable scores are needed for further analysis, and with small sample sizes ($N \leq 100$) as well as large samples (Hair, Hollingsworth, Randolph, & Chong, 2017). Because it is nonparametric, PLS-SEM also has a wider application and greater flexibility in handling various modeling situations where it is difficult to meet rigorous assumptions, such as a normal distribution and homoscedasticity, that are typically required with more traditional multivariate statistics (Vinzi, Chin, Henseler, & Wang, 2010). Therefore, PLS-SEM is appropriate for exploratory research, theory development, and prediction. It can be executed on both small and large samples sizes, with reflective or formative measurement models, and does not assume the data has a normal distribution. Finally, the method can be used with metric and non-metric data, continuous moderators, secondary data, higher order models, multi-group analysis, invariance and unobserved heterogeneity, making PLS-SEM a "go to" methodology for researchers.

Mediation

When a third variable, called a mediator, intervenes between two other variables, the opportunity arises to examine mediation (Baron & Kenny, 1986). Specifically, a change in the exogenous construct produces a change in the mediator variable, which then produces a change in the endogenous construct, and the mediator variable dictates the nature of the relationship between the exogenous and endogenous constructs (Hair, Hult, et al., 2017). A crucial prerequisite for investigating mediating effects is strong apriori theoretical support (Preacher & Hayes, 2008).

The foundation for mediation is a well-established theoretical relationship (c) between an exogenous (Y_1) construct and an endogenous (Y_3) construct (Figure 1) (Preacher & Hayes, 2008). Testing for mediation in a model requires a series of analyses beginning with testing the significance of the indirect effect (a b) via the mediator variable (Y_2) as seen in Figure 2. If the indirect effect is not significant, then Y_2 is not operating as a mediator in the relationship. However, if (a b) is significant, then the next test is to check the direct effect in the mediated model (c'). If c' is not significant, indirect-only (full) mediation has occurred. This occurs when the indirect effect is significant, but not the direct effect in the mediated model. Alternatively, if c' is significant, then partial mediation has occurred. When (a b c') is positive, then complementary mediation has occurred, but if (a b c') is negative then competitive mediation has occurred (Hair, Hult, et al., 2017).

FIGURE 1:
Direct Effect of Exogenous Variable on Endogenous Variable

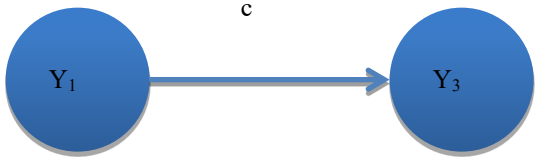
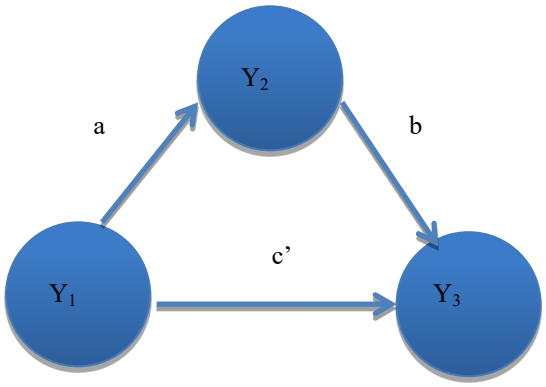


FIGURE 2:
Indirect Effect - Mediation Model



Mediation has traditionally been executed using multiple regression. Baron and Kenny (1986) and more recently the PROCESS approach by Preacher and Hayes (2008) both focus on multiple regression and examine significance in mediation using the Sobel test, which assumes the data are normally distributed. The advantages of using PLS-SEM for mediation are that bootstrapping makes no assumptions about the shape of the variables' distribution or the sampling distribution of the statistics, and all the mediated relationships are tested simultaneously instead of separately, which reduces bias (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). Finally, mediation testing using PLS-SEM can be applied with smaller sample sizes while yielding higher levels of statistical power compared to prior testing methods like the parametric Sobel (1982) test.

Path models that include a mediator are still required to meet the quality criteria of the measurement models. For formative measurement models, convergent validity (redundancy), collinearity between indicators, and significance/relevance of outer weights are required (Hair, Hult, et al., 2017). For reflective measurement models, the quality criteria include internal consistency reliability, convergent validity, and discriminant validity. It is important to also confirm that collinearity in the structural model is not at a critical level since biased path coefficients may incur. When high collinearity exists, the direct effect may suggest nonmediation via nonsignificance or an unexpected sign change may result in an erroneous differentiation between complementary and competitive mediation (Hair, Hult, et al., 2017). With complementary mediation, the mediated effect (a b) and direct effect (c') both exist and point in the same direction (i.e., the signs are either both positive or both negative), while with competitive mediation, the mediated effect (a b) and direct effect (c') are both present and point in opposite directions (i.e., a sign for one relationship is positive and the other relationship is negative) (Zhao, Lynch, & Chen, 2010).

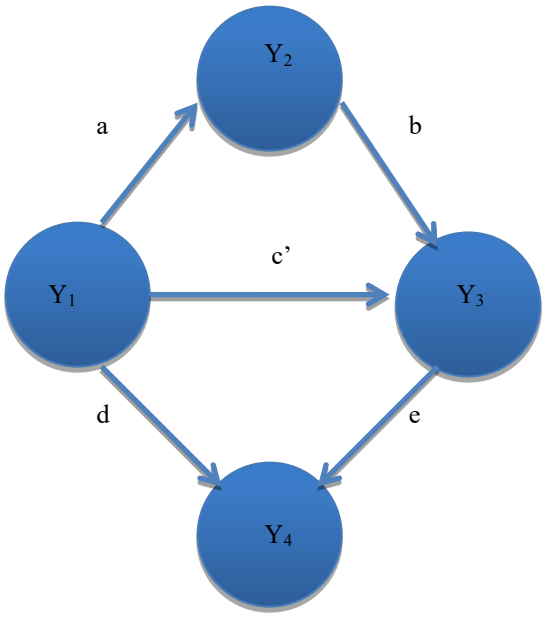
The most common types of mediation are simple mediation analysis and multiple mediation analysis. Simple mediation analysis is when one mediator variable is specified in the structural model. Often times, however, exogenous constructs influence endogenous constructs through more than one mediating variable requiring multiple mediation analyses (Hair, Hult, et al., 2017). The mediators reveal the "real" relationship among the exogenous and endogenous constructs. Figure 3 depicts a model with two mediating variables, Y_2 and Y_4. The direct effect is measured by c'. But the indirect effect of Y_1 on Y_3 now includes the Y_4 mediator (d e) in addition to Y_2, and the total indirect effect of Y_1 on Y_3 is measured by the sum of the two indirect effects (i.e., a b + d e). Therefore, the total effect of Y_1 on Y_3 is the sum of the direct effect and the total indirect effect (i.e., c' + a b + d e).

Analyzing all mediators concurrently allows for a more thorough understanding of the overall effect. If each mediator were analyzed in a simple mediation analysis (i.e., with a regression model where all relationships are tested separately), the indirect effect would likely be overstated due to the correlation of one mediator to another (Hair, Hult, et al., 2017). When PLS-SEM is used, multiple mediation in which all relationships (direct and indirect) are tested simultaneously is possible. Thus, with multiple mediation the impact of one or multiple mediators can be tested simultaneously, eliminating the overstatement of the correlation associated with each mediator.

The steps for processing multiple mediation analyses are the same as in simple mediation analysis. The testing process begins with examining the significance of each indirect

effect, and then the direct effect between the exogenous and endogenous constructs. To determine the total indirect effect manual calculations of the standard error for each specific indirect effect may be necessary. Using SmartPLS 3.0 (Ringle et al., 2015), however, this can be accomplished by simply obtaining the indirect effects results of the bootstrapping routine and using spreadsheet software such as Microsoft Excel. Finally, to calculate the *t* value of the specific indirect effect, divide the specific indirect effect by the standard error (Hair, Hult, et al., 2017).

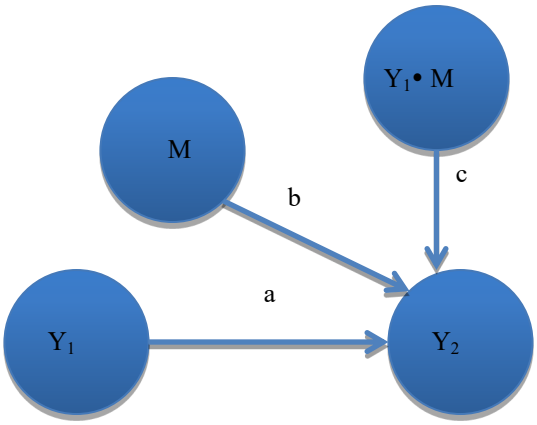
FIGURE 3:
Multiple Mediation Model



Moderation

Moderation (interaction effect) occurs when the relationship between two constructs varies depending on a third (moderator) variable (Henseler & Chin, 2010). The variation can influence the strength or direction of the relationship (Baron & Kenny, 1986). Moderator variables can be categorical (e.g., age, income, gender) and tested by means of group comparisons using either PLS-SEM or CB-SEM. Alternatively, with PLS-SEM moderators can also be a continuous variable (e.g., attitudes about satisfaction, loyalty, commitment, brand passion) typically measured using multi-item scales (note that continuous moderators cannot be used with CB-SEM). When including a moderator in the model, the variable will appear twice, once as the variable itself (main effect) and again as the interaction effect (a combination of the main effect and the moderator; see Figure 4). Unlike mediation where the exogenous construct acts as an antecedent to the mediator, in moderation the moderator variable and exogenous construct interact (Y_1*M) at the same level to impact the endogenous variable. This is a multiplicative relationship.

FIGURE 4:
Moderation Model



While several analytical procedures exist for estimating the measurement model with moderation (e.g., product indicator approach, orthogonalizing approach, and two-stage approach), the two-stage approach is typically recommended. The two-stage approach is able to handle both reflective and formative moderators and additional exogenous constructs in the path model. Moreover, compared to the other approaches, the two-stage approach exhibits higher levels of statistical power (Hair, Hult, et al., 2017).

The two-stage approach begins by running the main effects model without the moderation interaction term in the model to estimate the latent variable scores (Henseler & Chin, 2010). In the second stage, the latent variable scores from stage one of the exogenous latent variable and the moderator variables are multiplied to create a single-item measure to represent the interaction term (Hair, Hult, et al., 2017). At the same time, all the other latent variables are represented by a single item measure (latent

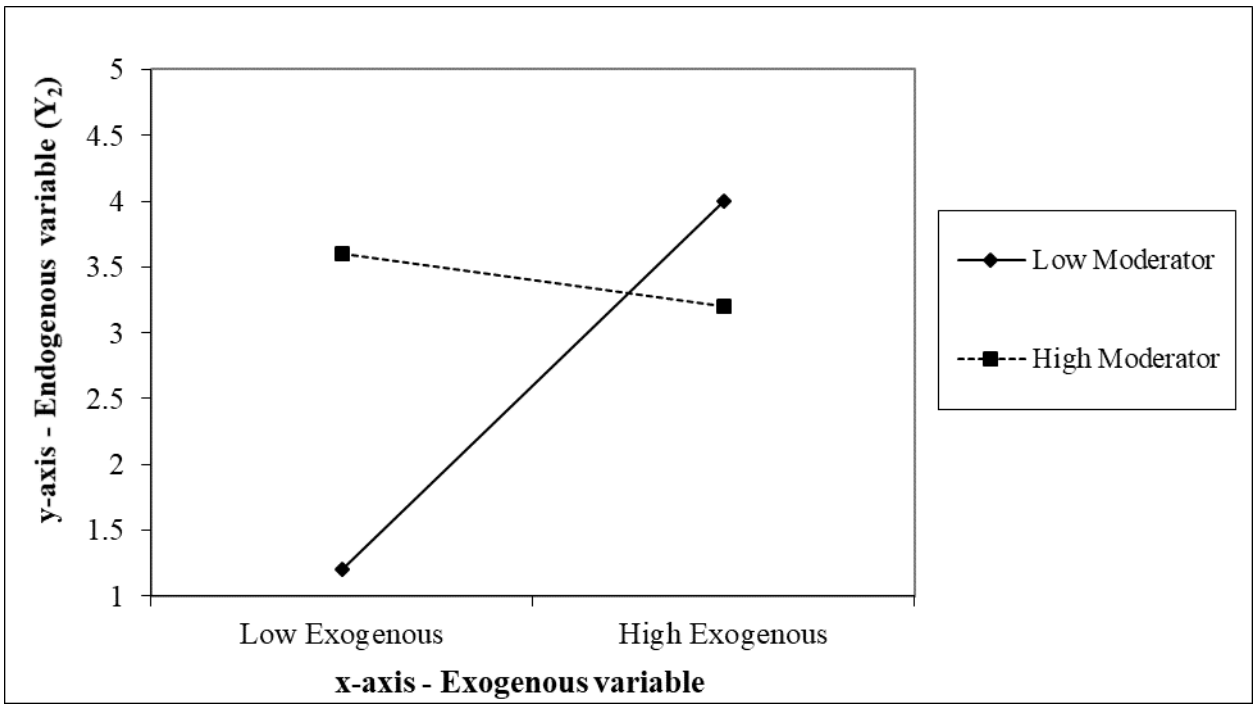
variable score) that was calculated in stage one. The moderator hypothesis is supported if the interaction effect (c) is significant (Hair, Sarstedt, Ringle, & Gudergan, 2018).

The results indicate that the value of c (interaction effect) represents the strength of the relationship between Y_1 and Y_2 when the moderator variable M has a value of zero (Hair, Hult, et al., 2017). However, since many scales either do not include a value of zero or a value of zero does not make sense, standardization is often necessary. Standardization facilitates interpretation as well as reduces collinearity among the exogenous construct, the moderator, and the interaction term. To standardize, the variable's mean is subtracted from each observation and divided by the variable's standard error (Sarstedt & Mooi, 2014). When using SmartPLS 3, the software executes many types moderation, standardizes when necessary, and produces a simple slope analysis for interpreting moderation results.

To assess the impact on the R^2 value when the interaction effect is omitted from the model, the f^2 effect size is examined. The f^2 measures the extent to which the endogenous latent variable is explained by the moderation. The f^2 effect sizes of 0.02, 0.15, and 0.35 suggest small, medium, and large effect sizes, respectively (Cohen, 1988).

Interpreting and drawing conclusions from the moderation results can be difficult. Slope plots are typically used as a visual illustration to gain a better understanding of the moderation effect. Figure 5 displays a two-way interaction of the relationship between Y_1 and Y_2. The horizontal x-axis represents the exogenous construct (Y_1) and the vertical y-axis represents the endogenous construct (Y_2). The two lines illustrate the relationship between Y_1 and Y_2 for both low and high levels of the moderator construct (M). The low level of M (solid line) is one standard deviation unit below the average, while the high level of M (dotted line) is one standard deviation unit above the average. There is a negative moderating effect of -0.80 between the interaction term and the endogenous construct. The high moderator's slope is relatively flat but decreases slightly as

FIGURE 5:
Graphical Illustration of Moderation Effect



the exogenous variable changes from low to high. Thus, the relationship between Y_1 and Y_2 becomes weaker with high levels of the moderator construct. But for low levels of the moderator variable, the slope is quite steep and the relationship between Y_1 and Y_2 becomes much stronger with high levels of M. To facilitate interpretation of the interaction, SmartPLS 3 computes and the output displays a simple slope plot.

Multi-Group

Multi-group analysis (MGA) or between-group analysis is a means of testing apriori defined groups to determine if there are significant differences in group-specific parameter estimates (e.g., outer weights, outer loadings and path coefficients) obtained when using PLS -SEM (Hair, Hult, Ringle, & Sarstedt, 2014; Henseler & Chin, 2010). By applying MGA, researchers are able to test for differences between two identical models for different apriori specified groups within the data set. In contrast to standard approaches to testing moderation, which examine a single structural relationship at a time, MGA via PLS-SEM is an efficient way to assess moderation across multiple relationships (Hair, Sarstedt, Ringle, et al., 2012).

This type of analysis enables researchers to identify differences between the structural paths of multiple groups. For example, Matthews (2017) illustrated how skill discrepancy partially mediates the relationship between autonomy and cognitive engagement for male salespeople, but not for female salespeople. PLS-MGA also facilitates a more accurate and comprehensive assessment of group differences and strategy implementation based on more specific outcomes for the heterogeneous groups in the data (Matthews, 2017). Finally, the differences identified can be used to highlight the potential error if these subpopulations are considered a single homogeneous group (Schlagel & Sarstedt, 2016).

The first step in conducting MGA involves generating data groups that are based on the categorical variable of interest (e.g., gender, country of origin, age, or income). Once the data is subdivided, it is necessary to ensure that the sample sizes of the new subgroups are large enough (See Hair, Hult, et al., 2014). Additionally, the subgroups should be similar in size to avoid introducing error (Becker, Rai, Ringle, & Volckner, 2013).This involves coding the master data file into subgroups that can be executed with PLS-SEM (Matthews, 2017).

While a number of approaches can be used to compare the path coefficients of the group SEMs, most researchers recommend the permutation test (Hair, Sarstedt, Ringle, & Gudergan, 2018). Permutation is non-parametric and more conservative than the parametric test, and controls well for Type 1 error (Henseler, Ringle, & Sarstedt, 2016). To execute the permutation test, the correlations between the composite scores using the weights obtained from the first group are computed against the composite scores using the weights obtained from the second group during each permutation run (Henseler et al., 2016).

The focus of multi-group analysis is to examine the path coefficients of the theoretical models for the two groups to determine if they are significantly different. This begins by running the model for each group separately, using the guidelines set out for evaluation of a measurement model (Hair, Hult, et al., 2014, 2017). This determines if there are group specific differences. Then, it is necessary to determine if the difference between the two groups is significant, which can be accomplished by running the Permutation Test. A permutation p-value of less than or equal to 0.10 indicates a significant difference between the two groups being compared (Matthews, 2017).

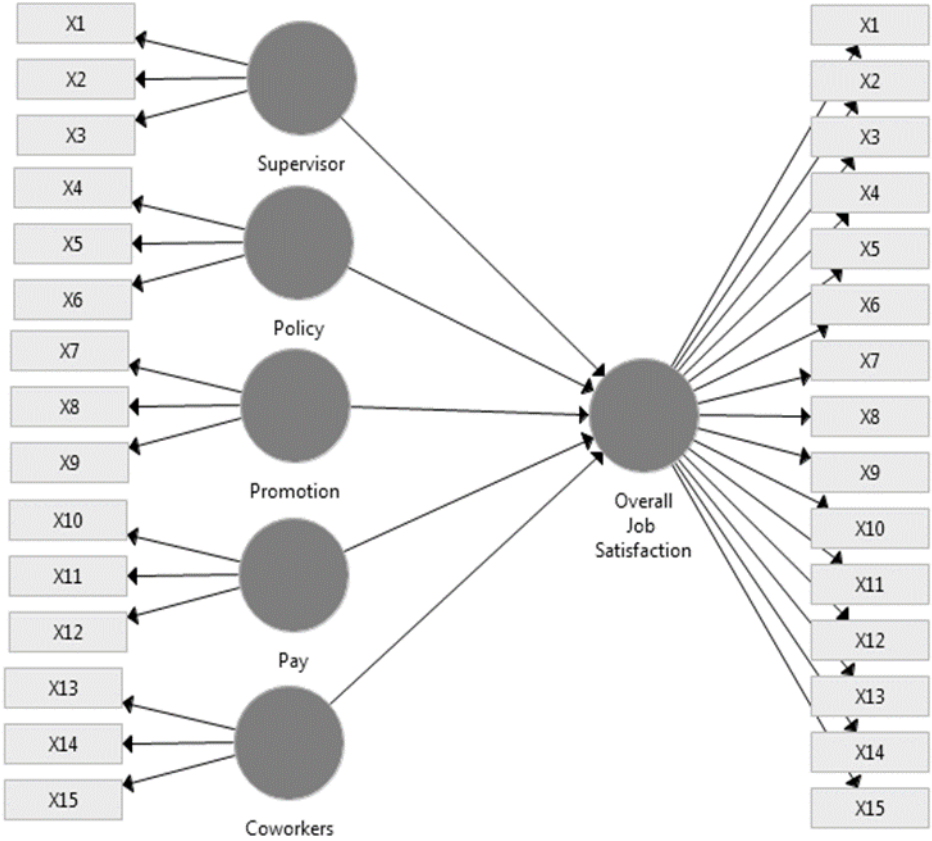
MGA allows researchers to determine significant differences among observed characteristics. These differences may not be evident in aggregate data since significant positive and negative group-specific results may offset one another resulting in non-significant relationships (Hair, Hult, et al., 2017). Although the path coefficients for the subdivided groups will often display numerical differences, MGA assists in identifying when those differences are statistically significant.

Hierarchical Component Models

Hierarchical component models (HCM), or higher order models, involve testing measurement structures that contain two layers of constructs, the higher order component (HOC) of the model and the lower order component (LOC). An example of a HCM is when lower order components of job satisfaction are specified as multi-faceted and the higher order component is a single overall construct of job satisfaction. Figure 6 displays a theoretical HCM for job satisfaction that includes the LOCs (lower order components) and the HOC (higher order component). In the figure, the LOCs represent the first-order multi-item constructs for job satisfaction, and the HOC is the second-order overall (combined) construct for job satisfaction. Researchers may find the use of a HCM helpful when trying to reduce the number of relationships in the structural model, making the model more parsimonious and easier to understand. In addition, introducing a HCM into a structural model can reduce multicollinearity among first-order constructs, or formative indicators that exhibit high levels of collinearity. In either situation, the use of HCMs should be supported by theory. Note that higher order models can also be used with CB-SEM, but the assumptions are much more restrictive and therefore limit their application with that method.

There are four main types of HCMs (Jarvis, MacKenzie, & Podsakoff, 2003; Wetzels, Odekerken-Schroder, & van Oppen, 2009) used in PLS-SEM models (Ringle, Sarstedt, & Straub, 2012). The HCM model begins with the lower-order components (LOCs), which are used to make up the higher-order component (HOC) (Hair, Hult, et al., 2017). Each model is

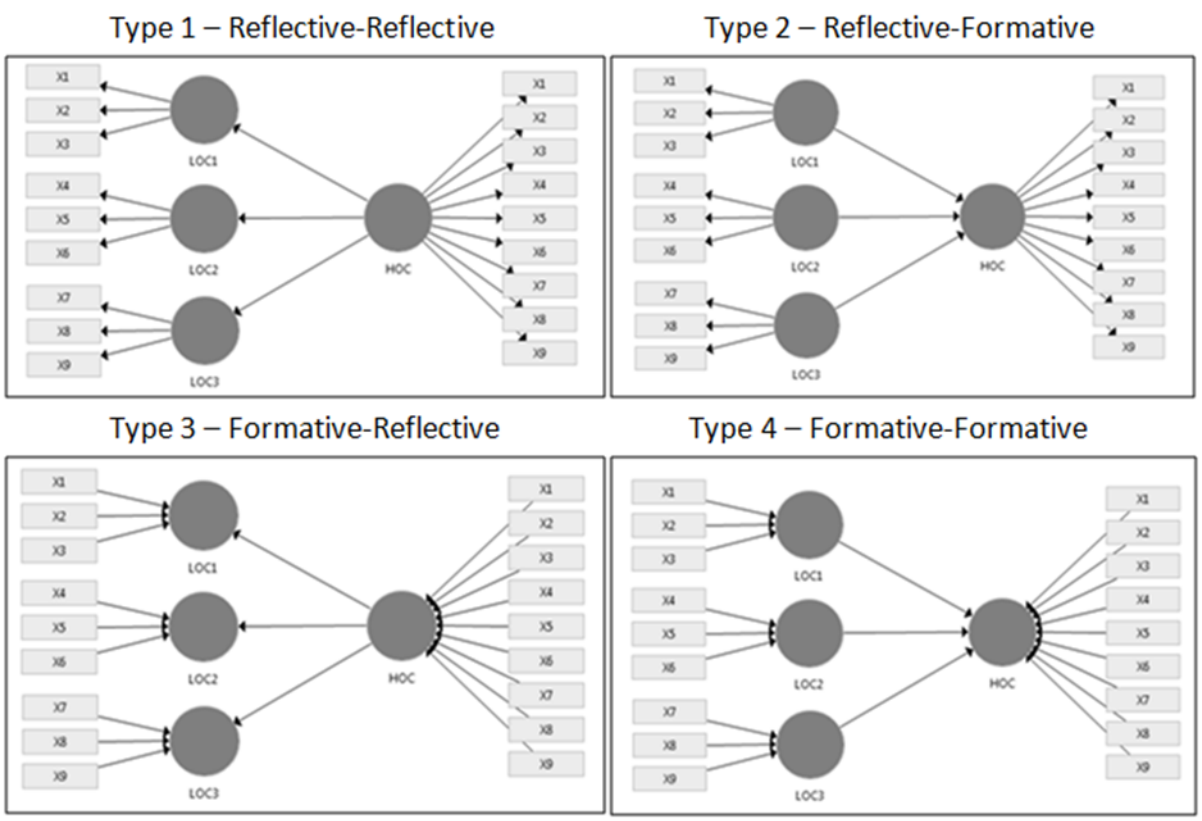
FIGURE 6:
Hierarchical Component Model for Multi-faceted Job Satisfaction



characterized by the different relationships between the LOCs and the HOC as well as the indicators with each construct. The first type is the Reflective-Reflective, where the indicator measures for the first order components are reflective and the measures from the LOC to the HOC are reflective (Figure 7). Type two is Reflective-Formative. For this model, the LOC indicators are reflective but the LOC to the HOC is formative. Type three is Formative-Reflective, such that the first-order indicators are measured formatively and the HOC from the LOC is reflective. The final type (type four), is Formative-Formative where the indicators of the first-order are measured formatively and the measures from the LOC to the HOC are formative.

When creating the HOC in PLS-SEM, all the indicators from the LOC are assigned to the HOC using a repeated indicators approach (Hair, Hult, et al., 2017). Therefore, the indicators for the HOC x_1 to x_9 are the same as the underlying components LOC_1, LOC_2, and LOC_3 in the measurement model. However, some issues arise using the repeated indicator approach when the model is formative-formative (type 4) or reflective-formative (type 2). In this situation, when the relationship from the LOC to the HOC is formative, almost all of the HOC variance is explained by the LOC (R^2 close to 1.0). This can be an issue if there are other relationships pointing to the HOC, as they will have a very small and insignificant impact. Therefore, for type 2 and type 4 models, a two-stage HCM analysis should be used (Hair, Hult, et al., 2017). Similar to the two-stage approach for moderation, in stage one the repeated indicator approach is used to obtain the latent variable scores for the LOCs. Then in the second stage, the LOC constructs and first-order indicators used for the HOC are replaced with latent variable scores for the LOC from stage one (Figure 8). The two-stage HCM analysis

FIGURE 7:
Four Types of Hierarchical Component Models



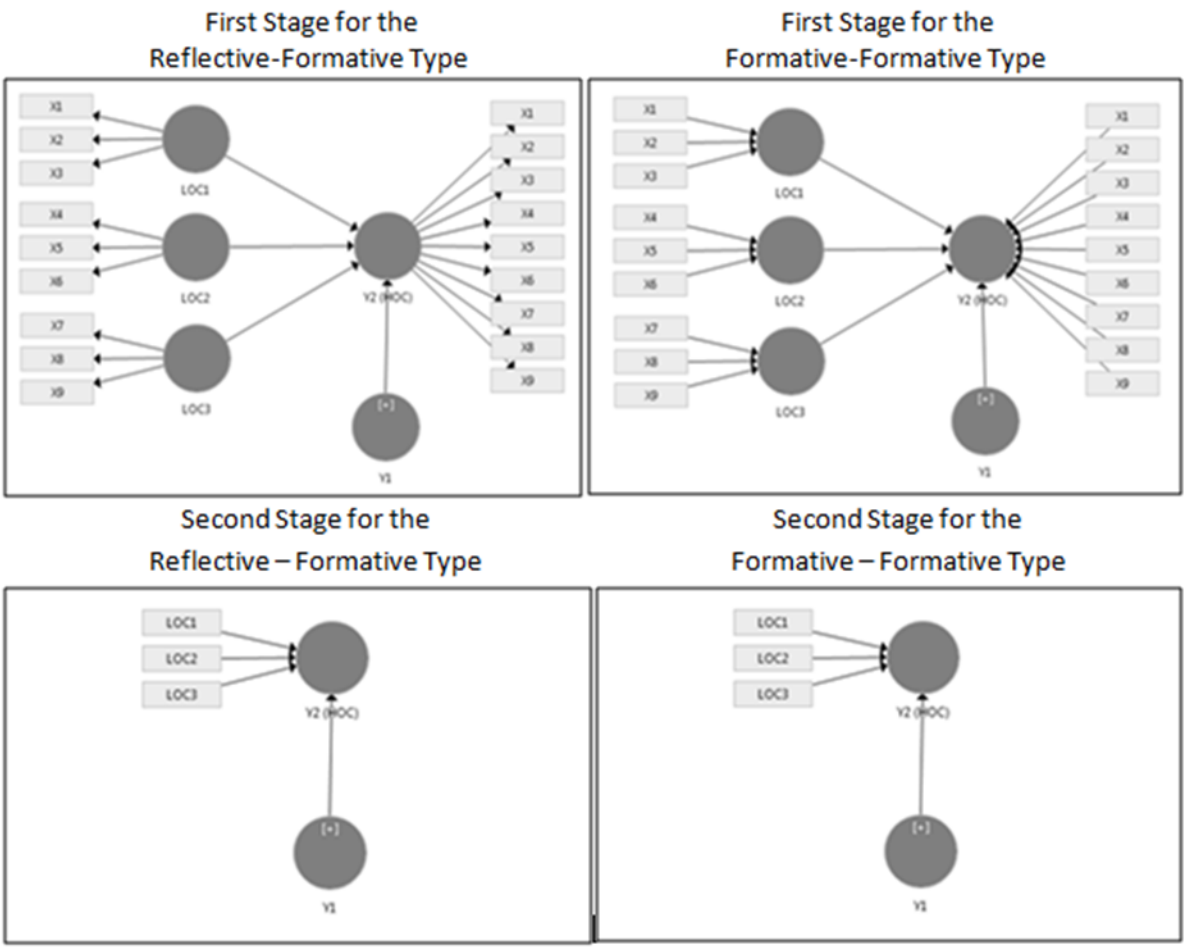
allows other latent variables outside of the HOC to explain some of the variance.

When using HCM it is important that a similar number of indicators are used for all the LOCs. Otherwise, the relationship between the HOC and the LOC can be biased due to the disproportionate number of indicators (Hair, Hult, et al., 2017). Note that the number of indicators on the LOCs does not have to be equal (as shown in Figures 6 & 7), but should be comparable. Additionally, for the inner PLS path model, not all algorithmic weighting schemes apply when estimating HCMs in PLS-SEM. In particular, the centroid weighting scheme should not be used (Hair, Sarstedt, Ringle, et al., 2012). Prior research using and explaining HCM models can further assist in understanding and explaining the outcomes of this technique (e.g., Becker, Klein, & Wetzels, 2012; Kuppelwieser & Sarstedt, 2014; Ringle et al., 2012).

Other Advanced Topics

In addition to the topics addressed above, researchers have further opportunities to improve their analysis and understanding of theoretical relationships. Measurement model invariance, which tests datasets for differences in measurement model estimates, is a useful tool that should be combined with multigroup analysis. By employing the measurement invariance of composite models (MICOM) procedure (Henseler et al., 2016), configural and compositional invariance can be

FIGURE 8:
Two-Stage Approach for HCM Analysis



established. Doing so ensures that variations in the path relationships between latent variables is a result of the true differences in the structural relationships, and is not the result of different meanings in the groups' responses attributed to the phenomena being measured (Hair, Hult, et al., 2017; Henseler et al., 2016). Failure to establish data equivalence using MICOM may potentially result in measurement error and thus misleading results (Hult et al., 2008), reduce the overall power of the statistical tests, and influence the precision of the estimators (Hair, Hult, et al., 2017).

The importance-performance map analysis (IPMA), or importance-performance matrix analysis, displays the structural model total effects on a specific endogenous construct. The total effects of the predecessor variables are used to assess each exogenous construct's importance in shaping the endogenous construct. The average latent variable scores of the exogenous constructs measure their performance (Hair, Hult, et al., 2017) using a rescaling technique (Höck, Ringle, & Sarstedt, 2010). Combined, researchers can identify constructs with relatively high importance (strong total effect) and low performance (low average latent variable scores) as areas for further research. IPMA can be conducted at the indicator level as well to identify and improve upon those indicators that are most relevant.

Finally, rather than using a priori characteristics to partition datasets into groups, as was described in multi-group analysis, tools like finite mixture PLS (FIMIX-PLS, Sarstedt, Becker, Ringle, & Schwaiger, 2011) or prediction-oriented segmentation (FIMIX-POS, Sarstedt, Ringle, & Hair, 2017) can be used to uncover unobserved heterogeneity. Since sources of heterogeneity in the data aren't always known a priori, identifying and treating unobserved heterogeneity allows researchers to feel confident about analyzing data at an aggregate level (Hair, Sarstedt, Matthews, & Ringle, 2016). Examples of FIMIX-PLS are available to aid researchers in the application to their own dataset (Matthews, Sarstedt, Hair, & Ringle, 2016; Sarstedt, Schwaiger, & Ringle, 2009). Failure to consider heterogeneity may also result in invalid outcomes (Becker et al., 2013).

Summary

When analyzing research that requires advanced analytical approaches, it is important to understand the differences between CB-SEM and PLS-SEM, as well as other multivariate analysis methods. Because PLS-SEM has a much greater capacity for handling a variety of modeling issues and does not impose restrictive assumptions (Vinzi et al., 2010), the use of PLS -SEM is highlighted. For mediation, the advantage of using PLS-SEM is the lack of restrictive distribution assumptions, the flexibility to execute with both formative and reflective measurement models, and the ability to yield higher levels of statistical power with smaller sample sizes, while overcoming the limitations of multiple regression approaches (Hair, Sarstedt, et al., 2014). The two-stage approach for moderation using PLS-SEM exhibits high levels of statistical power and is capable of handling both reflective and formative moderators when the structural model includes other exogenous constructs. Multi-group analysis via permutation in PLS-SEM enables researchers to easily identify heterogeneous groups in the data to more accurately assess group differences (Matthews, 2017). Finally, higher order component models (HCMs) can be applied with PLS-SEM to obtain more accurate solutions for structural models exhibiting high multicollinearity.

Beyond these advanced analysis approaches, PLS-SEM can: (1) establish data equivalence via the three stage MICOM process (Henseler et al., 2016) to minimize measurement error, (2) identify the importance and performance of antecedent constructs to target areas for further research (Hair, Hult, et al., 2017), and (3) uncover unobserved heterogeneity so structural and measurement models can be examined either at the individual group level or the aggregate level (Matthews et al., 2016; Hair et al. 2016). Therefore, when facing complex research models, even though there are a variety of multivariate methods available, the numerous flexible analysis options, limited assumptions, and user-friendliness of PLS-SEM make it the "holy grail" for advanced methods.

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GLOSSARY

Bootstrapping: a resampling technique that draws a specified (large) number of subsamples from the original data and using replacement, estimates models for each subsample. It is used to assess statistical significance without relying

on distributional assumptions to determine standard errors of coefficients.

Collinearity: when two variables are highly correlated.

Formative measurement model: a type of measurement model setup in which the direction of the arrows is from the indicator variables to the construct, thus indicating an assumption that the indicator variables cause the measurement of the construct.

Orthogonalizing approach: an approach to model the interaction term when including a moderator variable in the model. This creates an interaction term with orthogonals indicators. In the moderator model, these orthogonal indictors are not correlated with independent variable indicators and the moderator variable indicators.

Product indicator approach: an approach to model the interaction term when including a moderator variable in the model. This approach involves multiplying the indicators of the moderator with the indicators of the exogenous latent variable to establish a measurement model of the interaction term. The approach is only applicable when both moderator and exogenous latent variables are reflective.

Reflective measurement: a type of measurement model setup in which measures the direction of the arrow is from the construct to the indicator variables, thus the measures represent the effects (or manifestations) of an underlying construct. Causality is from the construct to its measures (indicators).

MILLENNIALS' PURCHASING RESPONSE TO CSR BEHAVIOR

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This work explores millennials' attitudes toward corporate social responsibility (CSR) behaviors relative to other product/firm attributes. More specifically, this research tests millennials' willingness to pay a premium for positive CSR products, and it investigates if CSR typology influences that buying decision. A shopping simulation survey employing choice-based conjoint analysis and maximum difference scaling was developed and administered to university business students. Results indicate that certain millennials regard a firm's CSR behavior to be substantially more important than six other product attributes (including price and quality) when making a purchase decision. Further, analysis demonstrates that for an article of clothing, millennials can show a preference for higher priced positive CSR options over lower priced negative CSR combinations, and may be willing to pay 25% more than the least expensive options. Specifically, it appears that the philanthropic typology of CSR behavior may be most favored by millennials.

INTRODUCTION

Global millennials, most often defined as born between 1981 and 1997, now account for 27% of the global population or 2 billion people. Together, China, India, United States, Indonesia, and Brazil possess half of the world's millennials (A.T. Kearney, 2017). This population, ranging from 19 to 26 years old, is becoming the largest global consumer generation in history. In the United States this demographic represents approximately 75 million current consumers, and is expected to peak at 81 million due to immigration by 2036 (Fry, 2017). Generation theorists postulate that changes in the macro environment influence the profile of people born during a specific time period, and imprint specific purchasing and consumption behavior (Strauss & Howe, 2000). Thus, it seems an imperative for both global marketing academics and practitioners to pursue a robust understanding of millennials' distinguishing characteristics and decision-making. This generation appears to differ from Generation X and Baby Boomers in a variety of ways; one being the way it regards corporations' behaviors, or their apparent level of corporate social responsibility (CSR). Studies (e.g., McGlone et al., 2011) indicate that millennials have "internalized the need to make the world a better place" (p. 196), expect the companies they work for to incorporate CSR permanently into their strategic plan, and want organizations to demonstrate external social values as a part of their contribution to the community. Furthermore, millennials appear to value CSR oriented firms more than other generations; 91% of millennials indicate that they would switch to a brand associated with a cause (price and quality being similar), 71% would be willing to pay more for CSR products, and 66% said that they use social media to engage around CSR (Cone Communications, 2015). The increasing market clout of millennials, combined with their CSR orientation, suggests an increasingly salient area of marketing focus and investment.

Consumer products companies such as Procter and Gamble (Proctor and Gamble, 2017) and Apple (Apple, 2017), report investing substantial resources toward CSR-related causes. However research dating back to the 1970's suggests that the financial benefits of such investments are inconsistent (Seidler, 2016); firms are thus challenged to question the prudence of substantial CSR investment. Given the millennial generation's size, increasing purchasing power and apparent attitudinal differences from its predecessors, it is more important than ever to focus research on this generation's perceptions of, and reactions to,

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firms that engage in CSR initiatives. To date, marketing research is deficient in providing the practitioner community with new and actionable insights as to the alignment and effectiveness of CSR activities with the interests of millennials. This work aims to begin addressing this need through an empirical investigation of millennials' attitude toward the CSR behavior, and focuses on two research questions. First, how does firm CSR behavior (i.e., positive, neutral, and negative) influence millennials' buying preferences when presented with typical product and service attributes (i.e., country of origin, quality, price, brand image, purchase method, and return policy)? Second, how do millennials regard the *value* of different types of firm CSR behavior relative to *price* in the purchase decision?

The work employs stakeholder theory and contributes to the research by empirically investigating both normative and instrumental approaches (see Donaldson & Preston, 1995) to firm behavior in response to a specific stakeholder group. It provides a *normative* view of the function of firms through the lens of an important contingent of stakeholders, millennials, and illuminates how that view differs from other demographic contingents. It also provides an *instrumental* view of corporate behavior and extends previous work (e.g., Bhattacharya & Sen, 2004; Brown & Dacin, 1997; Ellen et al., 2000; Mishra & Suar, 2010); CSR behavior can result in certain outcomes with specific stakeholder groups. For example, consider two firms that clearly target millennial consumers seeking reasonably priced casual shoes, Toms Shoes and Merrell. An investigation of each company's web site reveals different marketing strategies relative to CSR. In the case of Toms, their philanthropic mission is overt; they make a "one for one" donation of shoes for every pair sold. Alternatively, Merrell presents CSR related "causes they support," but no overt corporate statement is evident about its social responsibilities or actions (Merrell, 2017; Toms Shoes, 2017). The different approaches to CSR suggest that while both firms target millennials, they may have a different instrumental view of CSR's impact on millennials' behavior. Accordingly, the work also suggests potentially important managerial implications regarding millennial consumers' perspective of products and producers' CSR behavior. Finally, the work demonstrates how leading-edge research methodologies (choice-based conjoint analysis and maximum difference scaling) can be used as an effective tool in granular analyses of consumer trade-off purchase decision-making.

THEORETICAL BACKGROUND

Consistent with previous research (e.g., Jones et al. 2009; Mishra & Suar, 2010) underlying this work is the argument that CSR is inherently tied to stakeholder theory; a discussion of CSR behavior is incomplete without a discussion of the parties assessing that behavior. The reason for this assertion is that a firm's behavior necessarily extends beyond its fundamental profit generating duties to its shareholders, to include duties to parties other than shareholders such as employees and communities. In effect all firms, regardless of their level of CSR behavior, are subject to the perceptions and potential actions toward them by a broad group of parties, most often referred to as stakeholders. Stakeholder theory provides theoretical constructs (e.g., relational attributes of stakeholders, primary and secondary stakeholders) and a framework with which to investigate normative and instrumental implications of a fundamental question faced by all firms; who are our stakeholders and what should we commit to do for them? The focus of this work is millennials, making the argument that this demographic can be considered a discreet contingent of primary and secondary stakeholders that are highly relevant to certain consumer products firms. The following is a brief review of CSR and stakeholder theory, as well as a discussion of research findings on consumer response to firms' CSR behaviors.

Corporate Social Responsibility

Broadly defined, CSR is a company's activities and status related to its perceived societal or stakeholder obligations (Brown & Dacin, 1997; Bhattacharya & Sen, 2004; Varadarajan & Menon, 1988). The World Business Council for Sustainable Development (2015) defines it as "a continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce, their families, the local community, and society at large." Carroll

(1979) defines CSR as including the economic (i.e., produce goods and services wanted by society and obtain profits), legal (i.e., conform to society's laws and regulations), ethical (i.e., respond to society's expectations over and above meeting legal requirements), and discretionary (i.e., respond to society's expectations for the firm to assume social roles over and above the others) categories of business performance. Rodrigues and Borges (2015) suggest four aspects of CSR: economic, social, ecological, and recycling. Other elaborations of CSR suggest that ethical responsibilities can include fair labor practices regardless of local labor laws, environmental responsibilities beyond laws and standards, and philanthropic responsibilities to charities (Scilly, 2015). Finally, McGlone, et al. (2011) points out that the United States model of CSR often includes philanthropic expectations. The literature is thus broad in the definition of CSR, but generally includes economic, legal, environmental, ethical, and philanthropic characterizations. Pre-testing determined that four distinguishable categories and characterizations appeared most recognizable to our target respondents: environmental CSR (i.e., the use of recycled materials in the product and packaging, and commitment to the environment), philanthropic CSR (i.e., donations to charities and nonprofits), ethical CSR (i.e., commitment to ethical business practices), and economic CSR (i.e., fair labor practices and worker treatment).

Stakeholder Theory

Foundational to stakeholder theory is the notion that the responsibilities of a firm's management extend beyond profit maximization, to include the claims of non-stockholding groups (Ferrell et al., 2010; Freeman, 1984; Mitchell et al., 1997). In effect, the firm is an organizational entity, through which a number of different actors (i.e., stakeholders) accomplish multiple and sometimes incongruent objectives (Donaldson & Preston, 1995). Freeman (1984) broadly defines "stakeholders" as groups or individuals that can influence or be influenced by the achievement of the organization's objectives. Donaldson and Preston (1995) provide a stakeholder model identifying stakeholder groups as governments, investors, political groups, customers, communities, employees, trade associations, and suppliers. Per Mitchell et al. (1997), stakeholders can be identified based on their possession of one or more relational attributes: power (i.e., ability to impose their will through coercive, utilitarian, or normative means), legitimacy (i.e., a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate), and urgency (i.e., the degree to which stakeholder claims call for immediate attention). Primary stakeholders (i.e., groups on which the firm depends for survival and sustained success) consist of shareholders, employees, suppliers, customers, and public groups (i.e., government and communities providing infrastructure to the firm) (Clarkson, 1995). Secondary stakeholders (i.e., groups on which the firm does not depends for survival) can include the media, competition, and special interest groups (Clarkson, 1995). These groups may not be essential for survival, but can have a powerful influence on the behavior of firms.

Managerial decision-making is at the core of stakeholder theory; management must determine who are their stakeholders and what should they commit to do for them (e.g., Donaldson & Preston, 1995; Jones & Wicks, 1999; Mishra & Suar, 2010). A key underlying premise of the theory is that various stakeholders have disparate interests, all of which firms are unable or do not feel compelled to serve. Thus, managers are challenged to juggle stakeholders' competing and potentially conflicting demands (Freeman, 1984); managers give increasing attention to those groups or individuals possessing more than one or two of the aforementioned relational attributes. Donaldson and Preston (1995) offered three distinctive and mutually supportive approaches to stakeholder theory: descriptive/empirical (i.e., focusing on the actual behavior of firms), normative (i.e., focusing on how firms should behave and their purpose), and instrumental (i.e., focusing on the potential outcomes if firms behave in a certain way).

In this work we focus on millennials, and suggest that in the context of consumer products, this group may be considered both primary and secondary stakeholders. That is, depending on the firm, certain millennials are existing or potential customers, i.e., primary

stakeholders. Other millennials may never be customers of a consumer product firm, but may be part of groups that are able to influence public opinion, negatively or positively, regarding a firm's policies and actions (e.g., Clarkson, 1995), i.e., secondary stakeholders. The size of the millennial generation and its apparent positive regard for CSR behavior suggests that both its primary and secondary contingents possess power and legitimacy as previously defined. Alternatively, urgency is more dependent on the contingent as it relates to a firm's marketing strategy. Using the previous example, Toms Shoes/Merrell, each of these firms targets certain customers that it wishes to attract and maintain, and the claims of those customers call for more immediate attention than non-target consumers. Stakeholder theory informs managerial decision -making with regard to CSR. It serves as a mechanism for the firms to determine the relevance of CSR behavior to its primary and secondary stakeholders, and provides normative and instrumental guidance on how CSR actions should be considered and pursued.

Consumer Response to CSR

Seidler (2016) points out that research in the effects of corporate social performance on corporate financial performance dating back to the 1970's has shown to be positive, negative, and non-significant; the disparate results challenge an assumption of sufficient return on investment in CSR initiatives. There is, however, foundational and building evidence that consumers indeed respond to certain CSR behavior by firms. Ellen et al. (2000) show that consumers' reactions to a retailer's cause-related marketing efforts not only vary with the type of cause and the retailer's precise role in it, but also are reflected in consumers' attributions regarding their own motivations and that of the retailer. Brown and Dacin (1997) demonstrate that CSR's effect on consumers' preferences for a new product occurs through consumers' overall evaluations of the company itself, and that CSR is an element of that evaluation. Rodrigues and Borges (2015) determined that consumers' knowledge of CSR activities and perceptions of CSR revealed by the consumers influence their purchasing decisions. This research suggests the following research hypotheses:

H_1: Relative to other product, price, and service attributes, CSR behaviors are an important attribute concerning millennials' intent to purchase.

H_2: CSR behaviors are more important than price concerning millennials intent to purchase.

Research also suggests that most consumers react negatively to negative CSR information, whereas only those most supportive of the CSR issues overtly react positively to positive CSR information. Bhattacharya and Sen (2004) show that the positive effect of CSR initiatives on consumers' company evaluations is mediated by their perceptions of self-company congruence and moderated by their support of the CSR domain, suggesting the importance of domain selection (i.e., the type of CSR behavior) to CSR behavior's influence on the consumer. Mohr and Webb (2005) examined the influence of environmental CSR, philanthropic CSR, and price on consumer responses, determining that corporate social responsibility in both domains had a positive impact on evaluation of the company and purchase intent. Further, they also find valence-based asymmetries in the effect of CSR information on company evaluations: consumers' company evaluations are more sensitive to negative CSR information than positive CSR information; most consumers react negatively to negative CSR information, whereas only those most supportive of the CSR issues overtly react positively to positive CSR information. Jones et al. (2009) elaborated on this topic, asserting that it is informative to regard negative CSR by firms as "corporate social irresponsibility" or CSI, existing at the opposite end of a continuum with positive CSR. Similarly, Green and Peloza (2011) found that consumers can gain both positive and negative forms of value (i.e., emotional, social and functional value) from various typologies of CSR, and firms must ensure they meet minimum thresholds of CSR behavior. In summary, the research strongly suggests that valence and domain selection are highly relevant to the consumers' responses to various CSR behaviors. Given millennials stated preferences for positive CSR behavior (Cone Communications, 2015) and apparent desire to align with companies that demonstrate positive CSR behavior (McGlone et al., 2011), we

suggest the following additional research hypotheses:

- **H_3:** Millenials will have a stronger reaction to negative CSR information as compared to positive CSR information.
- **H_4:** Millennials will pay a price premium for positive CSR behaviors.
- **H_5:** Millennials will have statistically significant differences in their levels of preference for different CSR behaviors.

Prior research suggests that negative CSR associations can have a detrimental effect on overall product evaluations, whereas positive CSR associations can enhance product evaluations. Consumers' responses will depend on a number of factors including the type of CSR behavior and the individual consumer's congruence with that behavior (Brown & Dacin, 1997; Green & Peloza, 2011; Mohr & Webb, 2005). This work first analyzes the effects of CSR behavior relative to a number of product attributes and then, similar to Mohr and Webb's (2005) work, assesses the relative importance of four distinguishable CSR typologies relative to price.

METHODOLOGY

Undergraduate business students at a Midwestern state university were given a shopping simulation survey to assess their buying preferences regarding CSR. The focus of the study is millennials, but the sample is limited to current undergraduate student millennials. While the sample consists of 20 to 23 year old undergraduate students, millennials are defined as 19 to 26 years of age, including young adults that do not pursue undergraduate degrees. While the sample has limitations, it also yields insight into a specific and common group of millennials. While this study will need to be replicated on a more representative sample of millennials, the results from this study yield insights that can provide knowledge on a specific group of millennials and serve as a foundation of future research.

Email invitations containing a unique link to the survey were sent to potential respondents. After clicking past the welcome page, survey respondents were taken to a second introduction page, which informed them that they would be asked to make shopping decisions regarding a white button down shirt, and that they would be given different information about the shirt and its manufacturer.

Analytic Approach

We used choice-based conjoint (CBC) analysis and maximum difference scaling (MD), utilizing Sawtooth Software to implement each analysis. CBC analysis is a popular research method that has provided academic researchers and practitioners with a robust tool for understanding which attributes and their key performance levels are critical to a consumer's purchase decision (Orme, 2009). To develop the analyses' questions, the first step is to identify the relevant attributes and their corresponding levels of performance (de Bekker-Grob et al., 2012). Once the relevant attributes and levels are determined, the survey is constructed such that instead of directly asking respondents what they prefer or which attributes are most important, respondents evaluate potential product profiles and make their choices in a realistic setting (Garver et al., 2012). This approach allows researchers to simulate how consumers might act in an actual buying scenario.

MD is a relatively new research method receiving growing attention from academic researchers (Chrzan & Golovashkina, 2006; Garver et al., 2010). It is an extension of the method of paired comparisons, but MD asks participants to select both the best and worst choice from a list containing multiple items (i.e., most likely to purchase and least likely to purchase). MD was used as a choice modeling method due to the number and nature of prohibitions required to ensure the consumer's purchase decision was realistic and relevant. For example, in order to meet our research objectives and have positive CSR statements always be associated with a higher price, a number of prohibitions were necessary, and MD is better suited to handle a large number of prohibitions than other conjoint analysis approaches. MD studies are not adversely affected by the use of prohibitions.

Measures

A similar question and survey development process was implemented for both the CBC and

MD sections of the survey. Pre-survey testing was conducted to obtain feedback and opinions from target respondents, which resulted in a number of changes to the terminology used in the survey. For example, it was determined that for the manufacturer's brand image the terms "cheap," "cool," and "functional" served as relevant differentiators. In our pre-tests, respondents confirmed that purchasing a white button shirt was a relevant and engaging purchase. Furthermore, respondents confirmed that our levels for country of origin were relevant as well.

CSR levels. As discussed, the literature is broad in the definition of CSR, generally including economic, legal, environmental, ethical, and philanthropic characterizations. Our aim was to identify characterizations that were both consistent with the literature and resonated with our target stakeholders: millennials. In pre -testing, we determined four distinguishable categories and characterizations that appeared to be most recognizable: environmental CSR (i.e., the use of recycled materials in the product and packaging, and commitment to the environment), philanthropic CSR (i.e., donations to charities and nonprofits), ethical CSR (i.e., commitment to ethical business practices), and economic CSR (i.e., fair labor practices and worker treatment). Arguably, the characterization for economic CSR could be considered "ethical," but pre-testing and past research (e.g., McGlone et al., 2011) suggests that millennials consider a firm's profitability to be related to, among other factors, its fairness and concern for its workers. Further, the profit-based economic dimension of CSR was not presented due to the likelihood that respondents would not consider the generation of profits as a CSR dimension; they are de facto not stakeholders of the simulated firm. Of the four typologies, negative philanthropic CSR differs from the others in that it is described to the respondent as a lack of philanthropic behavior, whereas the other negative typologies possess a description of harm or negative consequences to society. This approach is consistent with Mohr and Webb's (2005) treatment in their assessment across the philanthropic and environmental domains of CSR. See Appendix A for positive and negative CSR characterizations in each category.

Product and manufacturer attributes. Pre-testing revealed that the following attributes, as described by the pre-test subjects, are potentially meaningful (i.e., differentiating) to our target stakeholders: country of origin (i.e., Mexico, China, or USA), product quality (Low, Medium, High), firm brand image (i.e., cheap, functional, cool), purchase method (i.e., online only, brick and mortar only, or both), and return policy (i.e., strict, typical, lenient). In terms of price, pre-testing revealed that this group expected to pay between $25 and $35 for a basic white button down shirt. As such we established three price points in the CBC analysis (i.e., $25, $30, and $35), and four price points in the MD analysis (i.e., $24, $27, $30, and $33).

The attributes and their corresponding levels were then entered into an experimental design, which guided the creation of the CBC and MD survey questions. The questions are designed using experimental design principles of independence and balance of the features. By independently varying the features that are shown to the respondents and observing the responses to the product profiles, the analyst can statistically infer what levels of performance are most preferred and which attributes have the most impact on choice. The resulting survey was then tested on a convenience sample of undergraduate students and professors, and minor wording changes were implemented that improved the intended meaning and interpretation of the questions. The final survey was posted on a secure, password protected web site and administered via an email invitation to the study sample.

Analyses Designs

CBC analysis of CSR vs. product/firm attributes. This portion of the survey contained 14 questions unique to each individual respondent. The number of questions was driven by the experimental design plan based on the number of product alternatives per question, the number of attributes, and each attribute's corresponding number of levels of performance. Each question provided three options for a white button down shirt, and participants were asked to select the option they would most likely purchase. In each case, the respondent was provided a combination of

neutral, negative, and positive CSR characterizations (See Appendix A) in all four CSR categories wherein the shirt's country of origin, its price, firm brand image, purchase method, and return policy vary from question to question. See Appendix B for a sample CBC prompt.

MD analysis of CSR typology vs. price. Our intention in this section was to conduct a more granular analysis of the type of CSR behavior relative to the price of the product. In this case the only attributes were CSR behavior in each of four categories (i.e., environmental, philanthropic, shareholder, and ethical) and the price of the white button-down shirt. As suggested in the valence findings in previous research (e.g., Bhattacharya & Sen, 2004), it was beneficial to focus on positive and negative CSR behavior relative to price. The respondents were then given a set of 16 questions related to purchasing the same white button down shirt, and again asked to make choices. In this section the respondents were given a positive or negative characterization of each of the four CSR categories in combination with a price, and asked to select the option they would most likely purchase and least likely purchase. Only the attributes of CSR and price were included in the choices, and each price only had one specific CSR category. To better answer the research question, we explicitly wanted to focus on a higher price with a positive characterization of CSR to see if the participant would choose that product profile over a lower price with a negative characterization of CSR; are millennials willing to pay more for options containing positive CSR characteristics? Prices offered were $24, $27, $30, and $33, with the lower prices (e.g., $24 and $27) assigned to negative CSR descriptions and the higher prices (e.g., $30 and $33) assigned to positive CSR descriptions. This approach was taken so that the number of meaningful choices would lead to more valid results. For example, who would not choose the lowest price with a positive characterization of CSR in comparison to a higher price with a negative characterization of CSR? See Appendix B for a sample MD prompt.

Sample and Data Cleaning

Once the data collection was completed, a rigorous data cleaning process was conducted. Our initial sample size was 222 respondents; however a number of respondents were determined to have low consistencies in their responses, which suggest that these respondents did not take the survey seriously. We applied root likelihood (RLH) in the CBC analysis and the fit statistic in MD analysis. Both of these tests help to assess internal consistency of the choices for each respondent. In addition to examining other quality measures (e.g., time to answer the survey, question consistency), those respondents who fell below a 0.40 on both RLH and the MD Fit Statistic were removed from the data, resulting in a sample size of 204 (Orme, 2009). All respondents were between ages 20 to 23 years, 51% female, 49% male, and full-time business school undergraduates.

RESULTS

Hierarchical Bayes was employed to analyze the data for both CBC analysis and MD analysis. Hierarchical Bayes is extensively used by choice-based conjoint analysis, discrete choice, and MD researchers and clearly represents best practice in this area (Garver et al., 2011). Under a number of widely varying circumstances, Hierarchical Bayes has been shown to be more accurate than competing analysis methods (Orme, 2009).

CBC Analysis

When interpreting importance analysis in choice-based conjoint analysis, a total of 100 points are shared among the attributes, with a higher number of points signifying higher importance in the choice. Subsequently, a lower number of points signify lower importance for that attribute in the choice. Analysis of this data (see Table 1) shows that of all 7 attributes tested, firm CSR behavior was more important than any of the others: CSR behavior (28.45%), followed by quality (20.21%), price (14.37%), country of origin (13.85%), brand image (9.83%), ordering method (7.22%), and finally return policy (6.07%). These results strongly suggest that CSR is the most important attribute in making purchase decisions in this particular study.

TABLE 1:
Choice Attribute Importance Scores

Choice Attributes	Importance Scores
CSR	28.45
Quality	20.21
Price	14.37
Country of Origin	13.85
Image	9.83
Ordering	7.22
Return Policy	6.07

TABLE 2:
Paired Sample T-Tests with Choice Attribute Importance

Paired Comparisons	Mean Difference	P Value
CSR - Return Policy	22.37	0.000**
CSR - Ordering	21.23	0.000**
CSR – Image	18.61	0.000**
CSR - Country of Origin	14.60	0.000**
Quality - Return Policy	14.13	0.000**
CSR – Price	14.07	0.000**
Quality - Ordering	12.99	0.000**
Quality - Image	10.38	0.000**
Price - Return Policy	8.30	0.000**
CSR - Quality	8.24	0.000**
Country of Origin - Return Policy	7.77	0.000**
Price - Ordering	7.16	0.000**
Country of Origin - Ordering	6.63	0.000**
Quality - Country of Origin	6.36	0.000**
Quality - Price	5.83	0.000**
Price – Image	4.54	0.000**
Country of Origin - Image	4.01	0.000**
Image - Return Policy	3.76	0.000**
Image - Ordering	2.62	0.000**
Ordering - Return Policy	1.14	0.003**
Country of Origin - Price	-0.53	0.610

** means significant at a p value of .05, where ** means significant at a p value of .01*

Paired sample T-Tests were employed among all possible pairs of choice attributes to examine if statistically significant differences exist between attribute importance scores (see Table 2). Paired sample T-Tests is a statistical procedure that compares the means of two variables for a single group of respondents to test if a significant difference exists between the two means, which is exactly the purpose of this analysis. In this study, we want to know if there are statistically significant differences in the means of the choice attributes for our sample. For these reasons, we employed paired samples T-Tests to examine the data. All but one of the paired comparisons found statistically significant differences between the attribute importance scores at a p value of less than .01. These findings suggest that CSR is the most important attribute when customers are making choices in this context. Results from Tables 1 and 2 lend support for confirming H_1 and H_2.

- **H_1 is fully supported**: Relative to other product, price, and service attributes, CSR behaviors are an important attribute concerning millennials intent to purchase.
- **H_2 is fully supported**: Relative to other product, price, and service attributes, CSR behaviors are more important than

price concerning millennials intent to purchase.

The preferences for different levels of CSR and other attributes were also revealing (see Table 3). To interpret this analysis, the scores are zero-based numbers, with zero representing average preference, negative scores representing below average preference, and positive scores representing above average preference. Negative CSR showed a below average preference with consumers (-91.3), descriptions that contained neutral CSR/no description received a slightly below average preference (-7.6), and descriptions including positive CSR had an above average preference (98.9). Quality (high at 63.3, medium at 14.4, and low at -76.7) and price ($25 at 40.9, $30 at 2.2, and $35 at -43.0) showed strong preferences as well. To examine if statistically significant differences exist between preference levels within an attribute, paired sample T-Tests were employed among all possible pairs of preference levels within an attribute (see Table 4). All but two of the paired comparisons found statistically significant differences between the preference levels scores at a p value of less than .01, suggesting that these differences are statistically significantly.

H_3 is not supported: Millenials will have a stronger reaction to negative CSR information as compared to positive CSR information.

MD Analysis

The MD analysis was used to examine preference levels for positive and negative CSR typology (environmental, philanthropic, shareholder, and ethical) in combination with price resulted in compelling findings regarding the relationship between CSR typology and price. The findings suggest that respondents strongly prefer positive CSR and they are willing to pay a price premium for positive CSR. First, the top four most preferred combinations are at the $30 price point and positive CSR: $30/positive philanthropic CSR (10.8%), $30/positive environmental CSR (10.2%), $30/positive economic CSR (10.0%), and $30/positive ethical CSR (9.8%). The sixth most preferred combination, $24/negative philanthropic CSR (7.5%) is the only combination in the upper half with a price lower than $30 with a negative CSR characterization. Also of note, the $33/positive philanthropic CSR combination at 7.9% is followed by the $24/negative philanthropic CSR combination at 7.5%. Finally, the higher price points, $30 and $33 in combination with positive CSR typology, account for over 70% of the preferred combinations (see Table 5).

To determine if significant differences exist between positive CSR with higher prices of $30 and $33 and negative CSR with lower prices, paired sample T-Tests were employed. Given the large number of product combinations, examining all possible pairs was problematic. As a result, composite variables were formed among products with similar price point and positive or negative CSR behaviors (see Table 5). Paired sample T-Tests were employed on all possible pairs of composite variables and the results are contained in Table 6. The results clearly demonstrate that there are statistically significant differences between composite variables at all the different price points. The results demonstrate that customers are willing to pay a significant price premium for positive CSR behaviors and that different preferences exist for different types of CSR behaviors, with philanthropic CSR behaviors displaying the most preference.

H_4 is fully supported: Millennials will pay a price premium for positive CSR behaviors.

H_5 is fully supported: Millennials will have statistically significant differences in their levels of preference for different CSR behaviors.

DISCUSSION AND MANAGERIAL IMPLICATIONS

The results of CBC and MD analyses provide potentially normative and instrumental insights regarding this stakeholder group and its perspectives of firms' CSR behavior relative to other product and price attributes. First, CBC analysis results indicate that millennials consider CSR behavior as substantively more important than the highest product attribute, quality, and almost twice as important as the second highest attribute, price. This finding builds on previous works (e.g., Brown & Dacin, 1997) demonstrating that positive CSR can positively influence consumers' preferences,

TABLE 3:
Preference Scores for Levels

Attributes	Levels of Performance	Preference Scores
CSR Behavior	Positive CSR	98.88
	No description	-7.57
	Negative CSR	-91.32
Quality	High Quality	62.33
	Medium Quality	14.40
	Low Quality	-76.73
Country of Origin	Made in USA	50.69
	Made in Mexico	-27.62
	Made in China	-23.07
Price	25$	40.87
	30$	2.17
	35$	-43.04
Image	Cool Brand Image	22.20
	Functional Brand Image	11.78
	Cheap Brand Image	-33.98
Ordering	Online and Brick & Mortar	15.02
	Brick & Mortar Only	-3.22
	Online Only	-11.80
Return Policy	Lenient return policy	7.40
	Typical return policy	5.14
	Strict return policy	-12.54

TABLE 4:
Paired Sample T-Tests with Preferences of Levels

Attributes	Corresponding Levels of Performance	Mean Difference	Significance Level
CSR Behavior	Positive CSR - Negative CSR	190.20	0.000**
	Positive CSR - No description	106.45	0.000**
	Negative CSR - No description	-83.75	0.000**
Quality	High Quality - Medium Quality	47.93	0.000**
	High Quality - Low Quality	139.05	0.000**
	Medium Quality - Low Quality	91.12	0.000**
Country of Origin	Made in USA - Made in Mexico	78.30	0.000**
	Made in USA - Made in China	73.75	0.000**
	Made in Mexico - Made in China	-4.55	0.059
Price	25$ - 30$	38.71	0.000**
	25$ - 35$	83.91	0.000**
	30$ - 35$	45.21	0.000**
Image	Cool Brand Image - Functional Brand Image	10.42	0.000**
	Cool Brand Image - Cheap Brand Image	56.18	0.000**
	Functional Brand Image - Cheap Brand Image	45.77	0.000**
Ordering	Online Only - Brick & Mortar Only	-8.59	0.000**
	Online Only - Online and Brick & Mortar	-26.82	0.000**
	Brick & Mortar Only - Online and Brick & Mortar	-18.23	0.000**
Return Policy	Lenient return policy - Strict return policy	19.94	0.000**
	Lenient return policy - Typical return policy	2.26	0.388
	Strict return policy - Typical return policy	-17.68	0.000**

**means significant at a p value of .05, where ** means significant at a p value of .01*

TABLE 5:
MD Preference Comparison

Price	CSR Description	Preference Level (%)
$30	Positive Philanthropic	10.8
$30	Positive Environmental	10.2
$30	Positive Economic	10.0
$30	Positive Ethical	9.8
$33	Positive Philanthropic	7.9
$24	Negative Philanthropic	7.5
$33	Positive Environmental	7.2
$33	Positive Economic	6.7
$33	Positive Ethical	6.7
$27	Negative Philanthropic	5.5
$24	Negative Environmental	4.2
$24	Negative Economic	3.8
$24	Negative Ethical	3.5
$27	Negative Environmental	2.4
$27	Negative Economic	2.1
$27	Negative Ethical	1.6
$30	Positive CSR Composite	10.2
$33	Positive CSR Composite	7.1
$24	Negative CSR Composite	4.8
$27	Negative CSR Composite	2.9

TABLE 6:
Paired Sample T-Tests with Price & CSR Behaviors Composites

Pairs of Price & CSR Behaviors Composites	Mean Difference	Significance Level
$30 with + CSR compared to $27 with - CSR	7.3	0.000**
$30 with + CSR compared to $24 with - CSR	5.4	0.000**
$33 with + CSR compared to $27 with - CSR	4.2	0.000**
$30 with + CSR compared to $33 with + CSR	3.1	0.000**
$33 with + CSR compared to $24 with - CSR	2.3	0.000**
$24 with - CSR compared to $27 with - CSR	1.9	0.000**

** means significant at a p value of .05, where ** means significant at a p value of .01*

and that at least one of the four types of CSR presented in this section is "congruent" (Bhattacharya & Sen, 2004) with millennial stakeholders. The fact that price was third to CSR and quality, could also suggest that millennials may consider a product's quality of higher importance when a firm is demonstrating CSR behavior. For example, research has shown that consumers can implicitly associate CSR behavior negatively in relation to product quality; e.g., Lin and Chang (2012) found that consumers use higher quantities of ecologic sanitizer (e.g., green or ecological products) than regular sanitizer (assuming that it is less effective) unless they are told otherwise, and Green and Peloza (2011) found that many consumers still report a quality stigma associated with some forms of CSR. Folkes and Kamins (1999) manipulated product quality (i.e., the quality of sound of a telephone) and price, determining that quality had a significant positive effect on attitude toward the firm when CSR was high, but had no significant effect on attitude when CSR was low.

Within CSR behavior, the zero-based preferences also prove informative. Millennials

appear to show similar levels of above and below average preference for positive and negative CSR behavior, respectively. This finding at first is contrary to findings (e.g., Bhattacharya & Sen, 2004; Mohr & Webb, 2005) of valence-based asymmetries in the effect of CSR information on company evaluations; most consumers react negatively to negative CSR information, whereas only those most supportive of the CSR issues overtly react positively to positive CSR information. The different finding may be due to demographic differences in samples. For example, Mohr and Webb's (2005) samples ranged in age from 19 to 94 with a mean of 53 years, compared to this sample comprised entirely of college students between 20 and 24 years of age. We suggest that the finding supports the assertion that millennials are more supportive of CSR issues in comparison to a broad population of consumers. The slightly below average preference for a lack of positive or negative CSR behavior also may suggest these stakeholders consider a lack of CSR behavior negatively when making a purchase, regardless of the CSR typology.

The MD analysis results are also informative. As noted previously, the choices were modeled to assign lower prices to negative CSR typologies and higher prices to positive typologies. Consistent with the CBC results, millennials appear to be willing to pay more for a product from a firm that demonstrates positive CSR behavior, than pay less for an equivalent product from a firm that demonstrates negative CSR behavior. The preference of $30 price versus a $33 price is consistent with the findings of Daniela et al. (2010) that consumers may perceive a higher benefit and value from a CSR oriented firm as long as the price differential is fair. The sole exception was negative philanthropic CSR at $24, which exceeded the preferences for a $33 price point for positive environmental, economic, and ethical CSR typologies. If we consider that "negative" philanthropic CSR behavior in this study is the lack of philanthropy (see Appendix A), this result is revealing in a number of ways. First, there is a price premium range wherein millennials appear to be willing to pay for positive environmental, economic, and ethical CSR typologies in comparison to a lack of philanthropic behavior by a producer. However, once that range is exceeded their preference shifts to the lowest price point and a lack of philanthropic behavior. Further the premium range may increase when comparing positive philanthropic CSR behavior to negative philanthropic CSR behavior. Finally, consistent with the assertion of von Schnurbein, et al. (2016) that "philanthropy has a special role outside of the classical CSR concept" (p. 280), it illustrates the theoretical difference between philanthropy and other forms of CSR. Whereas negative behavior in the other categories suggests potential social and environmental harm (e.g., worker exploitation, polluting the environment), barring scenarios of a firm somehow stealing from philanthropic organizations or donating to an philanthropic organizations to which the respondent is opposed, neither of which was tested, millennial stakeholders may regard "negative" and "a lack" of philanthropy as effectively one in the same. This assertion is further supported by the results for negative typologies, wherein negative philanthropic behavior at both price points ($24 and $27) were preferred over all other typologies. These findings again appear to conflict with those of Mohr and Webb (2005), who found that environmental had a generally stronger influence evaluations of the company and purchase intent. Again, we suggest that this supports the assertion that certain subsets of millennials (e.g., college students) differ in their alignment with CSR typologies than the broader population of consumers. Further, although in this study the environmental dimension of CSR appears less important than in the findings of other works (e.g., Rodrigues and Borges, 2015), it is consistent with the broader finding that specific knowledge of the CSR behavior does influence purchase decisions. Finally, it is notable that in both the positive and negative subsets, the least preferred were economic and ethical CSR typologies. Given the fact that this subset of millennials has had relatively less exposure to fair labor and ethical business contexts than they have environmental and philanthropic contexts, the relative position of these typologies to the others is not surprising.

The results of this work can provide firms with important insights as to the effectiveness of CSR investment and impact of communication

to millennial stakeholders, as both primary (i.e., customers) and/or secondary (i.e., legitimate social entity) members. First, millennials respond to CSR behavior positively, and appear to respond most positively to philanthropic behavior, suggesting it is a powerful congruent dimension. Second, a perceived lack of CSR behavior may be detrimental to millennials' perceptions regardless of a firm's actual behavior. Third, a lack of philanthropic behavior in combination with a relatively low price point can be a potentially effective combination of CSR behavior and price position however, other CSR typologies (e.g., ethical and economic) do not necessarily share the same relative effect. Fourth, consistent with previous research (e.g., Daniela et al., 2010), the type of CSR action selected by a firm can impact target consumers' reactions. In this case millennials appear to demonstrate a price sensitivity that varies between and within CSR typology.

LIMITATIONS AND FUTURE RESEARCH

This research is not without its limitations. Testing with 14 CBC analysis questions and 16 MD analysis questions, in addition to several demographic questions are potentially fatiguing. To address this issue, we included several "Ra-Ra" screens (e.g., "Great job, you're almost done with this section of questions!"), as well as a completion bar (0 to 100% complete). In combination with our non-response criteria, there may still remain nonresponsive respondents in our sample. Another possible limitation of our survey is that the shopping simulation may not accurately represent how participants make typical shopping decisions. While respondents may say they are willing to spend certain amounts on CSR and other attributes, actually spending the money may yield different results.

There is also the possibility of a "social desirability bias," in which respondents are prone to answer in a way they think is socially desirable, as opposed to what they would actually do in any given situation. Because CSR resonates with college age millennials, respondents may have selected options supporting CSR simply because they believe it is the "right" thing to do and further testing of this bias is warranted.

In addition, the focus of the study is millennials, but the sample is a convenience sample that is limited to current undergraduate millennials, not a full sampling of the described population. Clearly, millennial testing requires more refined categorical analyses. The work provides potentially normative and instrumental insights for researchers and practitioners, but just introduces the complexity of the relationship between CSR behavior and a specific cohort of millennials (college students at a Midwestern state university), thus generalizability is highly constrained to this sub-segment of millennials. For example, Gurau (2012) demonstrated that millennial students differ from millennial single and married professionals in brand loyalty behavior for products and services. In sum, while the millennial generation may share general characteristics, practitioners and researchers should consider a variety of factors (e.g., life-stage) in their segmentation strategies.

A number of areas can be suggested for future research. As discussed, the CSR typologies were limited to four, one of which (philanthropy) was distinctively different from the others. Study in the typology of philanthropy appears to be potentially fruitful, but requires deliberate precision. For example, is there a difference between congruence with CSR behavior and opposition to CSR behavior? This study illuminates the effects of a lack of philanthropic behavior, but what are the effects of philanthropic behavior toward an entity that is controversial, and potentially beyond non-congruent to the respondent?

Finally, CBC and MD studies assume a compensatory decision-making process, but is this model of decision-making accurate with millennial consumers making CSR choices? Some researchers have suggested that non-compensatory decision-making processes may more accurately reflect how consumers make choices (Garver et al., 2012). When millennial consumers choose products and services in the context of CSR behaviors, do they have "must have" or "must avoid" decision rules in this process? If millennial consumers use "must have" or "must avoid" decision rules, then future

research may want to employ non-compensatory choice modeling methods to explore this phenomenon.

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APPENDIX A:
CSR Typologies

Positive Typologies of CSR:

Environmental: Uses recycled materials in clothing items and packaging as a commitment to the environment

Philanthropic: Donates a large percentage of its profits to several reputable charities and nonprofit groups

Ethical: Known for making a continual commitment to ethical business practices

Economic: Only uses suppliers that continually enforce fair labor practices and are known for exceptional treatment of workers

Neutral Typologies of CSR: No description given

Negative Typologies of CSR:

Environmental: Uses wasteful amounts of materials in clothing and packaging, having an adverse effect on the environment

Philanthropic: Donates absolutely no money to any charity or nonprofit groups

Ethical: Sometimes under public scrutiny for unethical business practices

Economic: Known for using suppliers that don't comply with fair labor practices and treat workers unfairly.

APPENDIX B: Survey Prompts

Choice-Based Conjoint

If these were your only options, which would you choose?
Choose by clicking one of the buttons below:

(1 of 14)

Uses recycled materials in clothing items and packaging as a commitment to the environment.	Uses recycled materials in clothing items and packaging as a commitment to the environment.	No description given.
Donates a large percentage of its profits to several reputable charities and nonprofits.	Donates a large percentage of its profits to several reputable charities and nonprofits.	
Known for making a continual commitment to ethical business practices.	Known for making a continual commitment to ethical business practices.	
Only uses suppliers that continually enforce fair labor practices and are known for exceptional treatment of workers.	Only uses suppliers that continually enforce fair labor practices and are known for exceptional treatment of workers.	
Medium Quality	High Quality	Low Quality
Made in USA	Made in Mexico	Made in China
30$	35$	25$
Functional Brand Image	Cool Brand Image	Cool Brand Image
Brick & Mortar Only	Online Only	Online Only
Strict return policy	Typical return policy	Lenient return policy
RachelCBC_Random1=1	RachelCBC_Random1=2	RachelCBC_Random1=3

Maximum Difference Scaling

RachelMD_4

If you had to purchase one of the following shirts, which one would you most likely purchase and least likely purchase.

(4 of 16)

Most Likely to Purchase		Least Likely to Purchase
RachelMD_4_b=10	$33 Shirt Donates a large percentage of its profits to several reputable charities and nonprofits.	RachelMD_4_w=10
RachelMD_4_b=3	$30 Shirt Known for making a continual commitment to ethical business practices.	RachelMD_4_w=3
RachelMD_4_b=16	$24 Shirt Known for using suppliers that don't comply with fair labor practices and treat workers unfairly.	RachelMD_4_w=16
RachelMD_4_b=7	$27 Shirt Under public scrutiny consistently for unethical business practices.	RachelMD_4_w=7

Click the 'Next' button to continue...

EXAMINING THE EFFECT OF HUMOR IN ENVIRONMENTALLY-FRIENDLY ADVERTISING

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Environmentally-friendly advertising encourages consumers to act in ways that preserve the environment. Despite substantial efforts, this advertising has resulted in limited success, resulting in the need to develop new insights about how to promote environmentally friendly behaviors. This paper proposes an approach to environmental promotion through humor. Based on recent research in humorous threat persuasion theory, we examine the effect of humor in pro-environmental advertising. Hypotheses were tested with subjects in China, Germany and The United States of America. Results indicate humorous ads lead to more positive ad attitude and ad engagement than non-humorous ads. Moreover, pro-environmental humorous ads still evoke fear, albeit humor and fear operate differently. Humor increases ad attitude, which subsequently affects ad engagement. Fear, on the other hand, tends to affect ad engagement directly. Based on the research findings, we conclude that humor has a high potential for use in environmentally-friendly advertising.

INTRODUCTION

Green economy aims to ensure that economic growth is achieved without sacrificing the environment (Brand 2012; Ekins 2002), and its main goal is to avoid environmental degradation. Although efforts to establish a Green economy are substantial (Cf. OECD 2009/2010/2011), the expected changes have not been achieved (The World Bank 2012), and the market of Green products remains fairly small (EU 2015). Green economy is partly encouraged through economic and policy-related tactics. Green economy is also encouraged through advertising that presents negative-consequence reasons to be concerned about the environment, thus hoping to change consumption habits (Lorek and Spangenberg 2014). Such advertising has been used with some success as measured by increased priorities consumers attach to environmental issues when making decisions, and by increased attitudes towards ads that entail environmental themes (Haytko and Matulich 2008; Saahar et al. 2012; Delafrooz et al. 2014). On the practical side, some environmentally friendly ads have been used over decades (e.g., the popular 1960's through 1980s tagline "Give a Hoot; Don't Pollute"). However, effects of this advertising have failed to achieve the desired potential to encourage green sentiments and behaviors, and researchers have called for the development of supplemental approaches that engage more consumers and that increase the salience of engaging in environmentally protective behaviors (Kronrod, Grinstein, and Wathieu 2012). As environmental concerns continue to mount, developing and testing different approaches to environmental advertising is becoming more important.

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One approach that has yet to be considered in promoting a Green economy is humor. In marketing, the positive effect of humor has long been recognized for increasing attention, and increasing brand attitude (Weinberger and Gulas 1992; Eisend 2009). The effect of humor can be particularly high when consumers view humor as being aligned with a product category, brand, or the context of the consumption experience. Perhaps humor has not been yet considered for environmental advertising because humor is somewhat incongruous with environmental degradation. However, a recent stream of research has emerged, called humorous threat persuasion (HTP) theory. This research demonstrates that humor can also have a persuasive effect when dealing with threatening and fear-evoking topics (Conway and Dubé 2002; Yoon 2015; Yoon and Tinkham 2013). Humor can help lower the defensive responses induced by fear

and thus increase the effect of the message (Mukherjee and Dubé 2012). Drawing on this research, we examine the application of humor to environmental advertising. For many consumers, environmental concerns have reached a level of high concern. Given the research noted above, a humor approach may be plausible, given it addresses the fear of environmental degradation, which entails large and world-wide negative implications.

To our knowledge, this study is among the first to empirically test the effect of humor in environmentally-friendly advertising. In non-empirical research, Frame and Newton (2007) identified specific cases where humor was used in environmentally-friendly advertising, and Peattie and Peattie (2009) suggested that when it comes to limiting undesirable behavior through social marketing (e.g., smoking), people react more favorably to ads that include humor to deliver the message. For their smoking example, consider smokers who see "quit smoking" advertising that uses fear alone as a persuasion mechanism. The idea is that smokers tune out this advertising in a defensive manner. In contrast, smokers may be more responsive to similar advertising that also involves humor, which may diffuse immediate negative attitudinal reactions to the ad, leading to a higher success of the ad. The ideas advanced in these prior studies suggest empirical testing is a worthwhile next step. The scope of testing in our study is modest, but we hope to contribute to the literature in two ways. First, within the pro-environment context, we test whether humorous ads result in more positive ad attitude and engagement compared to non-humorous ads. Second, in the context of humorous threat persuasion, we compare the effects of humor and fear on ad attitude and engagement, to determine whether humor and fear motivate reactions to ads through similar versus different psychological processes. The effect of fear is considered in addition to that of humor because, although the treatment is humorous, the main goal is avoiding a threat, which naturally leads to fear associations. To briefly summarize results, we find that adding humor does result in more favorable reactions, and that humor and fear operate in different ways. Based on the results, we also provide managerial recommendations for marketing practitioners.

LITERATURE REVIEW

Challenges for Environmental Advertising

Slow acceptance of a Green economy has been attributed to different reasons, (Thøgersen 2014; Wheeler, Sharp, and Nenycz-Thiel 2013), and two are particularly relevant to this study. First, in aiming to change individual lifestyles and culture (Abideen and Saleem 2011), environmental advertising primarily focuses on limitation and avoidance; reminding consumers about the negative effects of consumption, and prescribing behaviors that are more environmentally-friendly (Osbaldiston and Schott 2012). Usually, environmental advertising prescribes lowering consumption of resources (Gatersleben et al., 2010), and sacrificing on an individual level (Gifford and Comeau 2011). When this avoidance approach in advertising is combined with the fact that the consequences of consumption on the environment generally are difficult to see, and people rarely notice any rewarding results from their behavior (Warde and Southerton 2012), it is easy to understand why the effectiveness of the environmental message is low.

Another reason for the slow acceptance of a Green economy is the overwhelming use of fear, especially in topics like climate change. Fear might not be the most efficient approach for promoting pro-environmental behavior, and some scholars openly call for its substitution with positive reinforcements (O'Neill and Nicholson-Cole 2009; Hastings, Stead, and Webb 2004). For example, O'Neill and Nicholson-Cole (2009, 355) found that fear appeals fail to produce the desired results, and recommend the use of imagery and information related to people's "everyday emotion and concern." The predominant use of fear in social marketing has also been criticized as producing short-term effects, and leading to ethical issues, for example, the development of maladaptive responses like heightened anxiety or complacency among those unaffected (Hastings, Stead, and Webb 2004). Thus, while fear is important, leveraging fear in a strictly-negative way is often less productive than using fear in some way that involves positive reinforcement.

Humor in Advertising

Scientific study of humor in advertising can be traced back to the 1960s (Kazecki 2012). Sternthal and Craig (1973) first examined humor in advertising, and concluded that humor increases attention. According to an estimate by Weinberger and Gulas (1992), during the early 1980s, humorous elements already were embedded in over 24.4% of prime-time television advertisements in the U.S. Humor has become a prevailing tool for product promotion in order to draw the attention of consumers (Chang and Chang 2014), and to increase product liking and brand preference (Greyser 1973; Gelb and Pickett 1983; Weinberger and Gulas 1992).

The effect of humor in advertising is well researched, and the literature provides ample evidence for its effect and operation. Humor can be processed affectively and cognitively (Alden, Hoyer, and Lee 1993). When processed affectively, humor enhances positive feelings and suppresses negative affect (Eisend 2011). When processed cognitively, humor leads to deeper information elaboration by attracting the attention of the consumer (McGuire 1978). The cognitive processing of humor can outweigh negative cognitions and can induce a positive influence on attitude toward the ad, and toward the brand (Eisend 2011). Humor also discourages scrutinizing the ad message and expressing counter-arguments (Krishnan and Chakravarti 2003). This distracting effect of humor can positively impact the attitude toward both the ad and the brand. However, when the attention to humor exceeds the cognitive response of the underlying brand message, a vampire effect may emerge (i.e., sucking attention away from the focal ad message), which can result in an impaired memorization of the ad message and a deferred delivery of the brand benefits (Eisend 2011).

Humorous Threat Persuasion

Recent results demonstrate that humor can be used successfully for promoting behaviors that avoid or partly diminish negative outcomes. For example, public service announcements related to social topics have increasingly used humor to promote behaviors associated with contexts where fear exists (Yoon 2015). This practice is labeled "humorous threat persuasion" (Yoon and Tinkham 2013, 30), where threat persuasion often relates to health or environmental issues (Freimuth et al. 1990). Specific to environmental friendliness, Audi's 2010 Green Car of the Year was advertised during the 44th Super Bowl with a humorous "Green Police" ad that featured music and lyrics sung by Robin Zander from the Cheap Trick band that performed the 1980s-music hit, "Dream Police" (Cruger 2010). The introduction of humor in threat persuasion leads to increased supportive argumentation and fewer rejections of the promoted preventive behavior (Voss 2009). Using fear alone in threat persuasion can lead to defensive responses and reduce the persuasiveness of the ad, and using humor can mitigate such defensive reactions (Mukherjee and Dubé 2012).

As might be expected, effects of humor in threat persuasion are often moderated by other variables. Humor tends to be more persuasive than fear when the threat is high and the involvement with the issue is low (Voss 2009; Yoon and Tinkham 2013). Humor is also more effective in promoting social behaviors when the prior attitudes are less firmly established (Jäger and Eisend 2013). The latter findings make humor a good candidate for the promotion of Green economy products because, in general, people have low involvement with environmental issues, despite the potential high importance of such issues. In the same way, humor may be more effective in introducing environmentally-friendly advertising to people unfamiliar with the topic. Another finding of humorous threat persuasion is that people with low need for cognition on the topic are affected more by humorous persuasion than by fear threat persuasion (Yoon and Mayer 2014). Bearing in mind that many facts supporting environmental changes are scientific, and people may be unable or unwilling to understand them, humor might be used to more gently introduce the Green economy, particularly to people who are not motivated to gain knowledge on the topic.

Research Hypotheses

We approach the effects of humor in environmentally-friendly advertising with two

research questions. First, we experimentally test whether humor (i.e., humorous threat persuasion) works in environmentally-friendly advertising, comparing effects of humorous ads to non-humorous ads on ad attitude and ad engagement (Hypotheses 1 and 2).

Next, upon a successful answer to the first research question, we seek to understand how people process humorous environmentally-friendly advertising. Specifically, in addition to the humorous message, fear still plays a role. In humorous threat persuasion, humor is a vehicle for delivering a message in a manner that will be well received, but fear is still present, reflecting the negative effect to be avoided (Yoon and Tinkham 2013). For example, a person may laugh at a humorous message about quitting smoking, but the potential negative outcome of not quitting is part of the cognitive process. Therefore, the second research questions examine the processing of humorous ads where an environmental threat exists, to see whether humor and fear components trigger psychological reactions that are similar or distinct.

For the context of our study, we focus on the form of social media advertising. As a practical consideration, social media has emerged as a main platform used by companies to communicate with their customers (Evans 2010; Cvijikj and Michahelles 2013). Also, behaviors exhibited in social media have been found to strongly correlate to real-life behaviors, such as with purchase intentions (Kim and Ko 2012). To clarify, we are not suggesting that social media is an advertising medium that should be preferred for testing humor effects over other advertising mediums. We have simply selected social media as a useful and manageable context for testing purposes.

Effectiveness of advertising is usually measured by the effect of an ad on psychological or behavioral variables. For example, new product advertising may seek to impact brand familiarity, purchase intentions, or actual purchases (Büschken 2007; Pergelova, Prior, and Rialp 2010). Ultimately, efficacy of environmental friendly advertising will hinge on how well it drives willingness to engage in green behaviors, and word-of-mouth that encourages others to engage in green behaviors. For this study, we focus on two intermediate psychological measures that drive subsequent behaviors and thus overall ad effectiveness, and that receive substantial attention in advertising research: attitude toward the ad and ad engagement (Verhoef, Reinartz, and Krafft 2010; Van Doorn et al. 2010; Brodie et al. 2011).

Considering the broad scope of environmental advertising, attitudes toward messages and engagement with messages on social media are very suitable ways to measure ad effectiveness. On a social network platform like Facebook, or the Chinese substitute RenRen (Dong, Wu, and Gu 2012), attitudes and engagement with ads lead to user activities such as rating (liking), commenting, and sharing ad messages, as well as linking or posting ads on personal profiles.

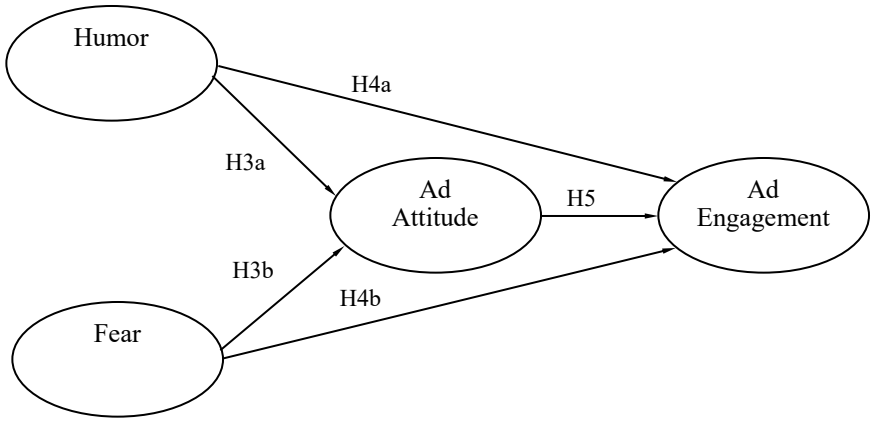
Ads that include humor may also engender more positive attitudes and engagement on social media because people use social media largely for emotionally positive purposes, including entertainment, passing time, expressing opinion, etc. (Reyes, Rosso, and Buscaldi 2012), and these positive purposes align well with consumption of humor. As evidence of this alignment, humorous messages spread more than other messages in social media (Molyneux 2014). Although environmentally-concerning topics may be associated with fear (O'Neill and Nicholson-Cole 2009; Whiteman 1999; Chen 2016), when humor is introduced in a tense situation, it has a relaxing and positive effect (Forester 2004). Where fear exists, the presence of humor in advertising results in a more positive brand attitude (Mukherjee and Dubé 2012). Therefore, we hypothesize, that for environmentally friendly ads:

H_1: Humorous ads result in a more positive attitude toward the ad than non-humorous ads.

H_2: Humorous ads result in a higher level of ad engagement than non-humorous ads.

Hypotheses 1 and 2 address the first research question. To answer the second research question, which addresses how humor and fear operate in humorous threat persuasion, we test the research model on Figure 1.

FIGURE 1:
Research Model for H_3 through H_5



The classical understanding of how humor operates has been discussed in other studies, and in a meta-analysis, Eisend (2009) summarizes that humor draws people's attention, positively affecting their attitudes. The positive nature of humor has also received attention with respect to the psychological process of attitude development (Greyser 1973; Gelb and Pickett 1983; Weinberger and Gulas 1992, Eisend 2011), and this positive aspect of humor distinguishes it from fear. In advertising, fear has been shown to have effects on attitude that may be either positive or even negative. Some studies report that fear has positive effects in advertising (Lewis et al. 2007). Strong and Dubas (1993), LaTour, Snipes, and Bliss (1996), LaTour and Rotfeld (1997) and De Hoog, Stroebe, and de Wit (2007) all found that fear has a positive effect on ad attitude and purchase intentions. Other studies, however, have found that fear can have negative effects on attitude (Brooker 1981; Moore and Harris 1996), which was attributed to self-protection responses inhibiting persuasion (Brennan and Binney 2010; Kok 2014). Overall, the literature reveals that humor has a positive effect on ad attitude, but fear may have mixed effects. Thus, for environmentally friendly advertising in the context of humorous threat persuasion, we expect both humor and fear to have effects on ad attitude, but the effect of humor to be more positive.

H_3: Humor (a) and fear (b) have positive effects on the attitude toward the ad, and (c) the effect of humor is more positive than the effect of fear.

In the context of social media, arguments can be advanced to support effects of both humor and fear on ad engagement. The importance of humor in social media is recognized even by Facebook, which created a series of video tutorials called "Just in Case Studies" used to educate Facebook advertisers about how to use humor to engage their audiences (Geoff 2014). According to Pew Research, social media is often consumed when people wish to view humorous content (Smith 2014). Turning to fear, fear has been shown to have some positive effects on engagement in advertising (Lewis et al. 2007). Supporting this notion, Strong and Dubas (1993), LaTour, Snipes, and Bliss (1996), and LaTour and Rotfeld (1997) found that fear has a positive effect on purchase intentions. Specific to environmentally friendliness, Chen (2016) has shown that fear can impact pro-environmental behaviors. With regard to the relative impact of humor on engagement, versus fear on engagement, extant literature on environmental friendliness does not suggest a strong conclusion. Some authors suggest that fear messages generate more interest than humor messages (Lee and Shin 2011). This could be related to basic work in

psychology indicating that negative consequences weigh more heavily than positive consequences, and lead to greater elaboration and greater impact on behavior (i.e., from seminal "losses loom larger than gains" work by Khaneman and Tversky, 1979). Based on the literature review, we expect that in the context of humorous threat persuasion for pro-environmental advertising, both humor and fear to have a positive effect on ad engagement, but the effect of fear to be more positive.

H_4: Humor (a) and fear (b) have positive effects on ad engagement, and (c) the effect of fear is more positive than the effect of humor.

Finally, based on the classical theory of reasoned action, we connect the overall effect of ad attitude to ad engagement. The more positive the ad attitude, the stronger the behavioral intentions to engage with the ad will be (Ajzen 1991). In relation to a Green economy, similar conclusions are provided by (Atkinson and Rosenthal 2014).

H_5: Ad attitude positively affects ad engagement.

METHODOLOGY

Data Collection

Data was collected from undergraduate students who voluntarily participated in the study, and was gathered in three countries (China, Germany, and the U.S.). All materials were presented in English, which was normally used in the university settings across data collection locations. Inter-country differences were not hypothesized, but we recognize environmental norms and practices vary across countries, and so results are presented with some breakdowns by country. The motivation to test the hypotheses in different countries was not to search or explain inter-country differences, but to look for broader support of the main proposition for the use of humor in pro-environmental advertising.

To test the research hypotheses, we used multiple ads, humorous and non-humorous. The data collection process consisted of pretesting and subsequent main data collection. For the pretest, we designed 12 ads, intended to be humorous or non-humorous. The ads were pretested to determine those with the highest and the lowest humorous content. The corresponding pretesting sample sizes for China, Germany and the U.S. were 21, 58 and 45 respectively. For consistency, all ads represented the same fictitious company called "The Green Company," and their designs were similar. Each ad was rated on its level of humor, and measured on whether respondents understood its meaning. The final selection included ads that were understood by respondents and achieved the most discrepancy between humor levels (ensuring higher perceived humor for ads with humor versus ads without humor). Ads are shown in tables 1a and 1b.

We kept the three most humorous ads and the two non-humorous ads for each country, to make sure the categories are not represented by a single ad. Although the partial difference for humorous ads in the different countries could be interpreted as lowering the internal validity of the study, it is a viable approach for two reasons. First, in international context, humor may vary in content, but the underlying cognitive processes are similar (Alden, Hoyer, and Lee 1993). Humor arises mostly from messages with unexpected or impossible claims. Second, humor can be perceived differently not only among countries, but also among individuals. A message is more humorous not only when it is more unexpected, but also when it is more relevant to the respondents (Lee and Mason 1999). Therefore, asking respondents to select the most humorous message in a pretest increases the relevance of the message and therefore its funniness, which is the goal of the treatment. A similar approach to data collection utilizing customization on an individual level was done by Alexandrov, Lilly, and Babakus (2013), who measured the drivers of positive and negative word-of-mouth, where respondents listed a brand with which they had experience, drawing conclusions for word-of-mouth based on multiple brands. Such customization of surveys to achieve relevance increases external validity because the results are not tied to a single brand or ad.

For the main data collection, respondents saw a series of humorous and non-humorous ads (within-subjects design), and answered the same series of questions for each ad. The

TABLE 1a:
Humor Ads

Pretested Ads	U.S.	Germany	China
			✓
	✓		✓
	✓	✓	✓
		✓	
	✓	✓	

TABLE 1b:
Non-Humor Ads

Pretested Ads	U.S.	Germany	China
	✓	✓	✓
	✓	✓	✓

presentation order of the ads was randomized to avoid order effects. The usable sample sizes for the main data collection from China, Germany and the U.S. were 110, 127 and 178, respectively.

Measurement

All measures in the study were in a Likert scale format ranging from "1-*I Totally Disagree*" to "7-*I Totally Agree*". (Table 2). For each ad, we measured: the degree of understanding of the ad, the level of humor, the level of fear, the attitude toward the ad, and the intended engagement with the ad. The measure for ad attitude was based on Unger (1995). The measure for humor was based on Cline, Altesch, and Kellaris (2003) and Zhang and Zinkhan (2006). An appropriate measure of fear in the studied context was not identified, and fear was measured with a 3-item scale developed for the purpose of the study. Engagement with the ad was operationalized in a manner that mirrors common social media behaviors used in practice; specifically, activities people could do if they saw the ad on social media like Facebook, and include: liking an ad, commenting on it, liking the publisher profile, posting it on a friend's wall, and sharing the image. Further, we viewed these specific engagement indicators to be useful because they are similar to indicators of engagement in the Word of Mouth literature, where subjects are often asked about the likelihood of making positive (or negative) comments about a brand or ad to another person.

RESULTS

Measurement Results

To evaluate cumulatively the results of the humorous and non-humorous ads (non-humorous ads being used solely to test Hypothesis 1 and Hypothesis 2), we averaged each scale's items, for humorous and non-humorous ads, which resulted in two overall measurement models (humorous and non-humorous), and six measurement models when we explored effects by country (i.e., humorous and non-humorous for China, Germany, and the

U.S.). The dimensionality, convergent, and discriminant validity of the measures were assessed initially via a series of exploratory factor analyses for the six samples. The maximum likelihood exploratory factor analysis (EFA) of the 14 items designated to measure the four constructs in the model (i.e., humor, fear, attitude, and ad engagement) produced four factors. For the six samples, the factors collectively accounted for between 72% and 83% of the variance, and the direct oblimin rotated results indicated that the majority of items loaded heavily on the expected factors. For the non-humorous sample in the U.S., three items (one from humor, one from fear, and one from ad engagement) did not load as expected. For each sample, the 14 items were subjected to a confirmatory factor analysis with a four-factor measurement model using the sample covariance matrices. The fit statistics indicate that the measurement models are acceptable (Table 2). The reliability coefficients (Cronbach's alpha) for all measures are above the .70 level suggested by Nunnally (1978). The three items for the non-humorous U.S. sample mentioned above, which did not load as expected during the EFA, extracted substantially less variance and were removed. The remaining factor loadings were significant, suggesting convergence of the indicators with the appropriate underlying factors (Anderson and Gerbing, 1988). The average variance extracted (AVE) by each underlying construct for all samples was above .50, and none of the shared variances between pairs of constructs was larger than the AVE by each construct (Fornell and Larcker 1981). The item associated with liking an ad on Facebook for

TABLE 2:
Confirmatory Factor Analysis and Measurement Properties of the Scales

Items	U.S.		Germany		China	
	Humor	Non-Humor	Humor	Non-Humor	Humor	Non-Humor
Humor						
1. I had fun seeing the ad.	.79	-	.93	.78	.70	.65
2. The ad is humorous.	.96	.98	.99	.98	.74	.86
3. The ad is funny.	.91	.97	.97	.98	.79	.90
Fear						
1. The ad is frightening.	.96	-	.90	.97	.85	.87
2. The ad is scary.	.95	.98	.93	.96	.98	.98
3. I was afraid when I saw the ad.	.89	.86	.91	.82	.79	.87
Attitude toward ad						
1. I like the ad.	.95	.90	.93	.94	.89	.93
2. I would enjoy seeing this ad again.	.95	.91	.93	.94	.93	.97
3. The ad is likable.	.93	.91	.93	.85	.79	.90
Ad Engagement						
If you saw this ad on Facebook/RenRen:						
1. I would click "Like."	.65	-	.71	.77	.77	.79
2. I would comment on this image.	.88	.89	.85	.97	.70	.88
3. I would like the publishing profile.	.88	.93	.78	.82	.77	.83
4. I would post this image on my friends' wall.	.91	.89	.85	.98	.84	.91
5. I would share this image.	.90	.94	.87	.91	.92	.91
Chi-square (df = 71)	218.09	91.98	129.6	176.1	160.8	182.1
RMSEA	.10	0.09	.08	.10	.10	.10
NFI	.92	.96	.95	.94	.91	.92
NNFI	.93	.96	.97	.94	.92	.94
CFI	.95	.97	.98	.96	.94	.95
All factor loadings are significant at 99% confidence level, t>2.57						

the U.S. extracted less than .50 variance (46%), and we kept this item due to its conceptual importance and compatibility with the ad engagement in the other countries. Overall, the results show that the measures are unidimensional and reliable, and exhibit convergent and discriminant validity. The descriptive statistics of the measures are in Table 3.

Tests of the Hypotheses

Before testing Hypotheses 1 and Hypothesis 2, we tested if the humorous – non-humorous treatment was successful by comparing the levels of humor between the two groups of ads for China, Germany and the U.S. A paired samples t-test for each country demonstrated that the humorous ads were perceived as significantly funnier than the non-humorous ads. In China, the respective averages were 3.83 vs. 3.00 (t=5.10, df=112, p<.000); in Germany the respective averages were 4.68 vs. 1.98 (t=18.53, df=126, p<.000); and in the U.S., the respective averages were 4.54 vs. 2.75 (t=17.04, df=176, p<.000), which demonstrated that ad manipulation was successful.

Next, we tested the first two hypotheses by comparing the averages of ad attitude and ad

TABLE 3:
Descriptive Statistics

	Humor Ads						Non-Humor Ads					
	Mean	St.d.	Correlations				Mean	St.d.	Correlations			
U.S.												
			Humor	Fear	Atti-tude	Ad Engage-ment			Humor	Fear	Atti-tude	Ad Engage-ment
Humor	4.53	1.05	1.00				2.75	1.10	1.00			
Fear	1.67	0.94	-0.14	1.00			1.65	1.04	0.46*	1.00		
Attitude	4.39	1.15	0.74*	-0.09	1.00		4.10	1.16	0.40*	0.05	1.00	
Ad Engagement	2.18	1.10	0.35*	0.20*	0.51*	1.00	1.80	1.14	0.62*	0.35*	0.51*	1.00
Germany												
			Humor	Fear	Atti-tude	Ad Engage-ment			Humor	Fear	Atti-tude	Ad Engage-ment
Humor	4.67	1.34	1.00				1.97	1.10	1.00			
Fear	1.70	0.89	0.09	1.00			1.55	0.97	0.55	1.00		
Attitude	4.09	1.43	0.75*	0.13	1.00		2.97	1.54	0.45	0.31*	1.00	
Ad Engagement	1.86	1.17	0.41*	0.51*	0.54*	1.00	1.44	1.02	0.45	0.59*	0.41*	1.00
China												
			Humor	Fear	Atti-tude	Ad Engage-ment			Humor	Fear	Atti-tude	Ad Engage-ment
Humor	3.85	1.22	1.00				3.00	1.50	1.00			
Fear	2.38	1.26	-0.15	1.00			1.76	1.31	0.35*	1.00		
Attitude	4.90	1.20	0.35*	-0.33*	1.00		4.65	1.69	0.39*	-0.16	1.00	
Ad Engagement	4.19	1.29	0.24*	-0.07	0.59*	1.00	3.55	1.67	0.48*	0.14	0.62*	1.00
* Significant correlations at the 0.01 level												

engagement between the humorous and non-humorous ads in the three countries, again using paired samples t-test. In China, attitude toward the ad was higher in the expected direction, but was not significantly different between the two types of ads: 4.90 vs. 4.65 (t=1.56, df=112, p=0.120), while engagement with the humorous ads was significantly higher than the engagement with the non-humorous ads: 4.19 vs. 3.55 (t=4.38, df=112, p<.001). In Germany, attitude toward the ad was significantly higher for humorous than for non-humorous ads: 4.09 vs. 2.97 (t=7.66, df=126, p<.001), and engagement with the humorous ads was significantly higher than the engagement with the non-humorous ads: 1.86 vs. 1.44 (t=4.29, df=126, p<.001). In the U.S., attitude toward the ad was significantly higher for humorous than for non-humorous ads: 4.39 vs. 4.10 (t=2.90, df=176, p<.004), and engagement with the humorous ads was significantly higher than the engagement with the non-humorous ads: 2.18 vs. 1.80 (t=5.85, df=176, p<.001). Therefore, Hypothesis 1 is supported in two countries and Hypothesis 2 is supported in all three countries.

To examine the second research question about the effects of humor and fear in humorous threat persuasion, we tested the research model in Figure 1 for humorous ads. The sample covariance matrices of the observed variables for the humorous samples were used as input to LISREL 9.20 (Jöreskog and Sörbom 1993). The initial results indicated that the model fits are acceptable (China: Chi-square=153.03, df=71, RMSEA=.09, NFI=.92, NNFI=.94, CFI=.96; Germany: Chi-square=129.61, df=71, RMSEA=.08, NFI=.95, NNFI=.97, CFI=.98; and U.S.: Chi-square=218.09, df=71, RMSEA=.10, NFI=.92, NNFI=.93, CFI=.95). A closer look at the path coefficients in Table 4 indicates that humor exerts a significant effect on the attitude toward the ad in all countries: U.S. (γ=.73 t=10.54), Germany (γ=.76, t=9.39), and China (γ=.35, t=3.43), thus lending support for Hypothesis 3a. However, fear affects ad attitude negatively only in China (γ=-.36, t=3.82), but has no effect on ad attitude in the U.S. (γ=-.02, t=-.42) or in Germany (γ=.06, t=1.00), which indicates that Hypothesis 3b is not supported. As expected, ad engagement is affected positively by ad attitude in all countries: China (β=.73, t=6.12), Germany (β=.46, t=3.82), and U.S. (β=.53, t=4.59), thus supporting Hypothesis 5. Humor does not affect ad engagement directly: China (β=.02, t=.12), Germany (β=-.02 t=-.22), and U.S. (β=-.05 t=-.50), therefore Hypothesis 4a is not supported, which means that humor's effect is mediated by ad attitude. The effect of fear on ad engagement is significant in all countries: China (β=.17, t=1.87), Germany (β=.53, t=5.90), U.S. (β=.28, t=3.86), thus lending support for Hypothesis 4b.

Hypothesis 3c and Hypothesis 4c were approached by testing the equality of path coefficients in the same model. We constrained the hypothesized paths to be equal, one at a time, and examined the change in the Chi-square compared to the gained one degree of freedom. If Chi-square increased by more than 3.84, that would indicate that the constrained path coefficients were not equal. The procedure is similar to testing for group differences, but in this case the constraints are imposed on a single group. We first fixed the paths from fear and humor to ad attitude to be equal, and then did the same for the paths from humor and fear to ad engagement. This was repeated for all countries, and in all cases, Chi-square increased ranging from 6.30 to 72.19, which showed that none of the fixed paths were equal. Therefore, considering the magnitude of the paths in Table 4, we can conclude that the effect of humor on ad attitude is more positive than the effect of fear on ad attitude, thus supporting Hypothesis 3c. Similarly, the effect of fear on ad engagement is more positive than the effect of humor on ad engagement, thus supporting Hypothesis 4c. Even more, fear is the only variable that has a direct effect on ad engagement, and the effect of humor is mediated through ad attitude.

DISCUSSION AND MANAGERIAL IMPLICATIONS

Overall, the results demonstrate that humor can play an important role in the communication of ecologically-friendly products. The support of Hypothesis 2 confirms that when compared to non-humorous ads, humorous ads are more efficient in eliciting a behavioral intention response. The finding that people are more willing to respond to a humorous ad in social media and engage with the message is supported in all three countries. An interesting

TABLE 4:
Test of the Structural Model

	Structural Model Parameter			U.S. Coefficient (t-value)	U.S. R^2	Germany Coefficient (t-value)	Germany R^2	China Coefficient (t-value)	China R^2
H_{3a}	Humor	→	Ad Attitude	**.73 (10.54)**	.53	**.76 (9.39)**	.59	**.35 (3.43)**	.28
H_{3b}	Fear	→	Ad Attitude	-.02 (-.42)		.06 (1.00)		**-.36 (-3.82)**	
H_{4a}	Humor	→	Ad Engagement	-.05 (-.50)	.30	-.02 (-0.22)	.55	.02 (0.12)	.47
H_{4b}	Fear	→	Ad Engagement	**.28 (3.86)**		**.53 (5.90)**		**.17 (1.87)**	
H_5	Ad Attitude	→	Ad Engagement	**.53 (4.59)**		**.46 (3.82)**		**.73 (6.12)**	

Note: All path coefficients are completely standardized. Based on one-tail t-test: t-values>1.3, p<.10; t-values>1.65, p<.05; t-values>2.33, p<.01 (Singh, 2000). Significant path coefficients at p<.05 are in bold

fact is that subjects in China seem to be more willing to engage with social media than subjects from Western cultures. Perhaps part of the reason is that discussion of environmentally friendly behavior in the U.S. and Germany is not new, and people do not find it interesting; but in China, sustainability is a fairly new social topic, which people might be willing to engage with.

Additional support for the importance of humor is provided by Hypothesis 1. Humorous ads result in a more positive attitude toward the ad than non-humorous ads. The result was strongly supported in the U.S. and Germany, and although in the predicted direction, not significant in China. This indicates that people tend to like and enjoy more environmentally friendly ads based on humor, which is worth noting because it opens the possibility for a new way of discussion and creativity in environmentally-friendly advertising.

Importantly, we find evidence that in humorous threat persuasion, although the message is humorous, fear also plays a role in the processing of the ad. Examining the effects of humor and fear for humorous ads reveals that humor and fear tend to operate via different routes. The effect of humor on ad engagement is mediated through ad attitude, which is a consistent finding for all countries. In contrast, fear affects ad engagement directly without mediation in the U.S. and Germany; but in China, its effect is mediated. This indicates that humor makes people process the ad, like it, and then engage with it. Fear, however, seems to affect ad engagement directly, without people forming attitudes toward the ad.

In conclusion, the results can be summarized as follows. First, in the context of environmental advertising, humor results in higher ad engagement than non-humorous ads. This is good news because it means that humor can increase pro-environmental behaviors. Second, humor increases the attitude toward the ad, which means people enjoy seeing it. Third, in humorous threat persuasion, both humor and fear play a role in processing humorous ads, albeit with different effects. Humor leads to forming a positive ad attitude, which subsequently affects ad engagement; fear tends to effect ad engagement directly. Humorous content is processed in fairly similar fashion across the three countries studied, which may be used as evidence to create universal global environmental campaigns.

Overall, the results support the fact that humor can leverage emotions effectively in environmentally-friendly advertising. Humor

can make the discussion on Green products pleasant, not based solely on fear, but also on positive emotions, which can help keep it on top of people's minds in their everyday lives. Considering the results of the positive humor effects and its similar operation in different countries, global managerial opportunities exist to communicate the benefit of Green products. In conclusion, we suggest that humor in environmentally-friendly advertising has merit and should be pursued globally.

LIMITATIONS AND FUTURE RESEARCH

Although the results are encouraging, the study has limitations. First, the collected data was from student samples, which could be interpreted as a limitation. On the plus side, students represent the millennial generation and typically are avid social media users. Engaging via social media is natural for them, and provides a good context for measuring the effectiveness of environmentally-friendly advertising. In addition, millennials are the generation that likely will face the problems and consequences if the world fails to move to a Green economy. Of all generations, millennials across the world share the most common characteristics, and on average, 53% find the climate change to be a very pressing issue (Telefónica Global Millennial Survey 2016), which makes them a suitable global study group. Despite the encouraging results for millennials, testing the effect of humor in pro-environmental advertising for other generations is warranted.

The use of different humorous ads in different countries also could be viewed as a limitation, because it could be interpreted as weak internal validity, and any difference in the results could be due to the different ad content. However, ads were selected due to eliciting a desired humorous reaction, and the primary testing goal was to focus on the humor reaction rather than specific brands. Results of the pretest indicate the manipulation was successful, with humorous ads being perceived as funnier than non-humorous ads. Also, different humorous ads per country were averaged, helping to combat against a spurious result that could exist if humor was strongly content dependent. Most importantly, the similar results across countries demonstrate the highest level of support for our approach.

In terms of future research, actual green behaviors should be examined, such as whether consumers purchase projects with a preference toward sustainability (e.g., choosing energy efficient appliances for reasons beyond cost), and whether consumers recycle when given the opportunity. The study here stopped short of these behaviors, looking only at immediate reactions to advertising. Now that the effect of humor has been substantiated in the environmental context, looking at product oriented behaviors is an important next step. In spite of the findings reported here, if green behaviors fail to emerge when consumers face product decisions, then little has been gained.

Another future research idea is based on recognizing that inter-country differences could play a role in ways we did not investigate. For example, perhaps quest for harmony in the Eastern culture affects how fear is processed, which could explain the negative effect of fear on ad attitude. More inter-cultural research is needed to reveal the potential differences in the processing of humorous threat persuasion, and which factors (e.g., collectivism vs. individualism, etc.) affect them. Such an effort would require strong measurement invariance to guarantee meaningful comparisons among the countries. Our study focused only on within-country tests of the hypothesized effects.

In conclusion, this paper provides encouraging findings about the importance of humor in sustainability and environmentally-friendly advertising, which to the authors' knowledge has not been done before. We hope that our efforts are an important step in welcoming humor on the path to a Green economy.

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SALES EFFORT AND PERFORMANCE: DARK SIDE OF CUSTOMER PRODUCT KNOWLEDGE

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Salespeople have to allocate time and effort working with different types of customers. Is there a trade-off associated with expending salesperson effort on customers with high versus low product knowledge? Does this potentially impact sales performance? Extant research is limited in its ability to provide insight into these issues, reinforcing the need to better understand how a sales force, spanning boundaries between a company and its customers, can effectively manage customer product knowledge to maximize sales outcomes. The current research conceptualizes and empirically tests the interplay of salesperson effort and salesperson perceived customer product knowledge in shaping sales performance. Specifically, the paper postulates that perceived customer product knowledge attenuates the positive impact of salesperson efforts on sales performance. Using data collected from a sample of 185 automobile salespeople, we find support for the main effects of salesperson effort and perceived customer product knowledge, and the proposed negative interaction. The findings suggest that high product knowledge customers can do well with relatively little effort on the part of the salesperson. At the same time, salespeople can benefit by expending more effort toward customers with low product knowledge. We conclude with a discussion of implications for research and practice.

INTRODUCTION

While customers remain the "lifeblood" (Gupta and Lehmann, 2005, p. 2) of firms, the traditional passive role of customers is giving way to a more active, involved, and consultative one. Moreover, customers come to the buying process more educated and prepared than ever before, often with their desired solution already mapped out (Adamson, Dixon, and Thomas, 2012). Consequently, salespeople confront the increased complexity that comes from managing customers with different levels of market knowledge. While factors influencing sales performance lie at the heart of decades of scholarship in sales force management (e.g., Brown and Peterson, 1994; Churchill et al., 1985; Murshed and Sangtani, 2016; Schmitz and Ganesan, 2014), studies explicitly linking customer product knowledge to sales performance are notably lacking. As an important exception, DeCarlo, Laczniak, and Leigh (2013) examine how subjective customer product knowledge moderates the role of suspicion in sales call attributions and outcomes in the context of financial services selling.

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The current research is an attempt to improve understanding of how the effect of customer product knowledge bears upon sales performance. To that end, we investigate how salesperson effort and salesperson perceived customer product knowledge (hereafter, perceived customer product knowledge) jointly affect sales performance. Specifically, we provide a systematic conceptual and empirical integration on how customer product knowledge attenuates the positive effect of salesperson effort on performance.

This research pursues three contributions to extant theory and practice. Foremost, to the best of our knowledge, this study is the first to examine perceived customer product knowledge within the context of sales management. Previous studies have noted the performance implication of customer knowledge development (e.g., Menguc, Auh, and Aypar, 2013), with relatively little consideration for a more fine-grained construct of customer product knowledge. Second, we contribute to the sales effort literature by offering conceptual and empirical evidence that a higher level of perceived customer product knowledge can reduce the positive effect of salesperson effort on sale performance. Research to this point is limited in its ability to provide insight into the moderating role of

customer product knowledge in the effort-performance paradigm. By offering a contrasting perspective to previous research, the current study is responsive to calls for gaining a more meaningful understanding of factors that shape sales performance (e.g., Stewart, 2006). Finally, from the perspective of practice, our study provides several actionable insights for firms to improve personal selling strategies. At a broad level, this research depicts customer product knowledge as a relevant metric for sales managers and offers guidance regarding how to allocate time and efforts across customers with different levels of product knowledge and manage individual customers more effectively. For example, according to our findings, a firm's interests are best served by paying close attention to understanding the needs and interests of customers with low product knowledge. By the same token, it also follows that salespeople may not have to go to great lengths to deal with customers with high product knowledge.

The remainder of this paper is organized as follows: First, we present the theoretical background to the study and derive the hypotheses. Next, we describe our method and present the empirical analysis of survey data from a sample of automobile salespeople. Finally, we discuss the theoretical and managerial implications of these findings, describe the limitations, and offer suggestions for future research.

Theoretical Development

Our conceptual model (See Figure 1) depicts the relationships among salesperson effort, perceived customer product knowledge, and sales performance. We expect that the positive impact of salesperson effort on sales performance will be moderated by perceived customer product knowledge.

Salesperson effort. Effort has been defined as the "force, energy, or activity by which work is accomplished" (Brown and Peterson, 1994, p. 71). For the purpose of this research, we subscribe to the prior notion that effort is within the control of the salesperson (Ingram, Lee, and Skinner, 1989) and represented by the drive associated with both physical and cognitive demands of performing job tasks (Churchill et al., 1985; Krishnan, Netemeyer, and Boles, 2002). Sujan, Weitz, and Kumar (1994, p. 40) have aptly conceptualized effort as "persistence - in terms of the length of time devoted to work and continuing to try in the face of failure." Extant research has distinguished between two components of effort - level (working hard) and direction (working smart) (Rapp, Agnihotri, and Forbes, 2008; Sujan, 1986). For example, Rapp, Agnihotri, and Forbes (2008) have defined effort as working hard and adaptive selling as working smart. Schmitz and Ganesan (2014) classify effort as activities directed at interactions with customers (customer directed effort) and activities spent on internal coordination with other departments (internally directed effort).

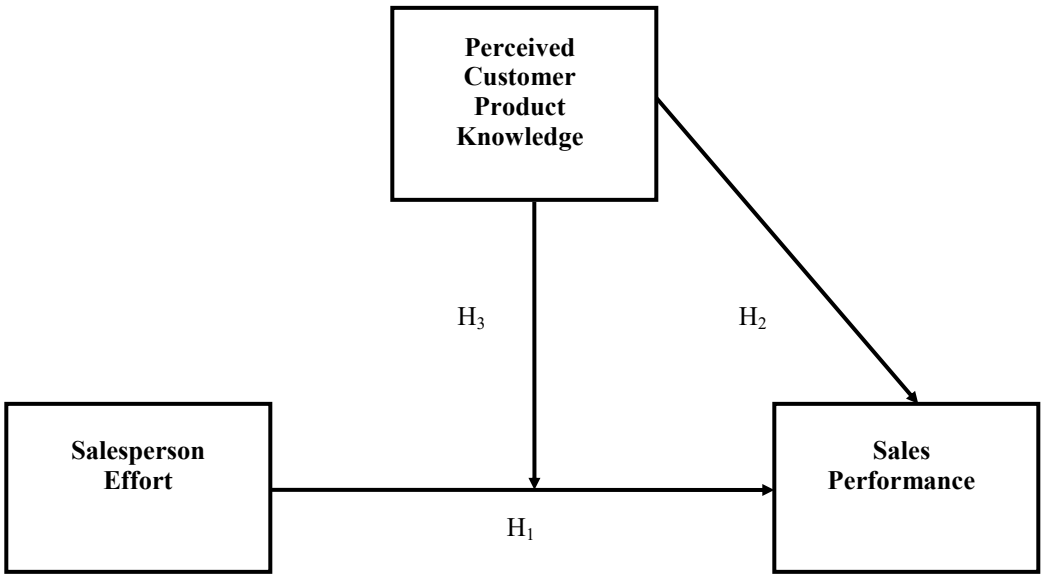
Prior research has provided significant insight into factors prompting salespeople to expend greater effort and its downstream impact (e.g., Brown and Peterson, 1994; Rapp et al., 2006). A stream of research also shows that salesperson effort improves sales performance (e.g., Jaramillo and Mulki, 2008; Rapp, Agnihotri, and Forbes, 2008; Schmitz and Ganesan, 2014; Sujan, Weitz, and Kumar, 1994). As frontline boundary spanners (Singh, Marinova, and Brown, 2012), salespeople are the key implementers of the marketing concept (e.g., Hughes and Ahearne, 2010). As such, it has been well documented that in the face of a slowing economy and intense competition, an increasing amount of salesperson effort is needed for maintaining existing customer relationships and prospecting for new customers (Wagner and Hansen, 2004). Similarly, research has alluded to salespeople's commitment and execution as contributing factors towards the success of the products they sell (Anderson and Robertson, 1995). Significant evidence of the positive effects of salesperson effort on sales performance has also been documented in Brown and Peterson's (1994) meta-analysis.

Formally, we propose the following replication hypothesis:

H_1: Salesperson effort is positively associated with sales performance.

Perceived customer product knowledge. Customer product knowledge represents the amount of domain-specific information about a

FIGURE 1:
Conceptual Framework



product category that is stored in the customer's memory (Brucks, 1985; Wood and Lynch, 2002). Alba and Hutchinson (1987) associate this with familiarity and prior knowledge about the product. Researchers have identified two major approaches for measuring product familiarity: one refers to accurate product-related information stored in memory and measures how much a person knows about a product (objective knowledge), and the other approach is concerned with how much a person thinks he or she knows about a product, or the metacognitive feeling of knowing (subjective knowledge) (Brucks, 1985; Carlson et al., 2009; Flynn and Goldsmith, 1999; Hadar, Sood, and Fox, 2013). Research across a range of domains has found that objective and subjective knowledge are distinct constructs and correspondence between these two types of knowledge is not high (Alba and Hutchinson, 2000; Brucks, 1985; Carlson et al., 2009). Our conceptualization of customer product knowledge reflects the subjective knowledge domain. Specifically, this research examines salespeople's subjective perceptions about customers' product knowledge. It has been documented that subjective knowledge is strongly related to experiences and consumers' confidence in their ability to make a good choice (Alba and Hutchinson, 1987; Bearden, Hardesty, and Rose, 2001).

Customers with a higher level of product knowledge possess extensive general knowledge about the product category: the attributes of different models and brands, and how the attributes might affect product performance (e.g., Mitchell and Dacin, 1996) or price. Furthermore, when customers are more knowledgeable about a product domain, they can detect new information about that domain more efficiently (Johnson and Kieras, 1983), and use fewer cognitive resources to categorize it (Alba and Hutchinson, 1987). Research has long suggested that customer product knowledge plays a role in the inference process in response to persuasion effort (Friestad and Wright, 1994; Hong and Sternthal, 2010; Kirmani and Campbell, 2004). Accordingly, higher product knowledge is associated with greater interpretive abilities concerning product and persuasion cues, and allows customers to retrieve the brands appropriate for a usage situation (Cowley and Mitchell, 2003). This resonates with the notion that high product knowledge customers will be more efficient in interpreting market information. Possessing high product knowledge will also make it easier for customers to perform certain tasks, and for salespeople to perform relationship enhancing activities. Based on this notion, while dealing with customers possessing strong product knowledge, a salesperson can save considerable time and effort, which can be redirected to

generate and qualify more leads, thereby, potentially leading to superior sales performance. Therefore,

H_2: Perceived customer product knowledge is positively associated with sales performance.

Moderating effect of perceived customer product knowledge. Salespeople serve as important intermediaries between the product and customers and, as such, successful selling is most often built on joint contribution of salespeople and customers. Studies in this area take the view that customer characteristics can play an important role in shaping sales performance (e.g., Homburg, Droll, and Totzek, 2008; Homburg, Müller, and Klarmann, 2011a). We posit that higher perceived customer product knowledge will compromise the positive impact of salesperson effort on sales performance. The logic underlying the proposed relationship can be explained in three ways: perceptions of knowledge redundancies (Noordhoff et al., 2011), less appreciation of salesperson effort, and worries about opportunism (Wathne and Heide, 2000). Below we describe these three mechanisms.

First, prior research has alluded to the phenomenon of "knowledge redundancy" where the degree of similarity or overlap in partner capabilities, knowledge, and skills may create inefficiency (e.g., Anderson and Jap, 2005; Rindfleisch and Moorman, 2001). We posit a potential dysfunctional context when a high level of sales effort is expended toward customers with high product knowledge.

Second, we postulate that strong product knowledge instills confidence in customers and they are likely to make informed decisions on their own. Consequently, they are more inclined to discount the salesperson effort focused on them. Customers who possess higher product knowledge may perceive a salesperson's product knowledge to be inadequate, the presentation to be uninformed, and interpret extra initiatives by a salesperson as an attempt to undermine them. Given this sensitivity, these customers would prefer the salesperson to play a marginal role, especially, in advanced stages of a sales encounter (i.e., while making decisions).

Third, customers with high product knowledge may perceive salesperson effort as an opportunistic overture. Previous research conceptualizes opportunism as a partner misbehavior, where actions of one party (i.e., salesperson) transgress specific relational norms and directly harm the interests of the other (i.e., customers) (e.g., Selnes and Sallis, 2003; Wathne and Heide, 2000). For example, Selnes and Sallis (2003) observe a negative interaction between trust and knowledge exchange activities. To put this into perspective, consider an automobile sales encounter: the salesperson might explain that computerized control units can drive up the price of the vehicle. Whereas, a customer knowledgeable about the evolving nature of the product is aware that most, if not all, new vehicles have a fairly high degree of computerization. Under this condition, high level of effort may provoke a discord and trigger a negative impact on the sales encounter, and consequently on sales performance. Consistent with this perspective, intensified effort put forth by a salesperson on a high product knowledge customer could create a potential conflict and may not translate into a positive outcome. On the contrary, when the sales encounter is with customers with low product knowledge, ramping up effort and going the extra mile will add value at every step of the sales process. In light of this view, we suggest that customers with low product knowledge are more likely to seek relationship-enhancing activities focused on them and show more appreciation for any extra efforts aimed at understanding and satisfying their needs.

Following from the preceding discussion, we propose the following moderation hypothesis.

H_3: Perceived customer product knowledge negatively moderates the relationship between salesperson effort and sales performance. The positive effect of salesperson effort is weaker for customers with high product knowledge and stronger for customers with low product knowledge.

EMPIRICAL STUDY

Sample and Data Collection

To test the proposed relationships, we surveyed salespeople working at automobile dealerships. This serves as a ripe context for investigating the effect of perceived customer product knowledge, our focal construct, for three reasons. First, automobiles are perceived as a high-involvement category. Second, customers can arm themselves with knowledge and information available on the internet. And, third, product knowledge varies considerably from one customer to another.

The sample was drawn from 27 different automobile dealerships located in four cities/ towns within 100 miles of each other in the southern United States. Even though we contacted the dealerships' general managers to introduce the study and encourage participation, to avoid any bias, we collected the completed questionnaires in closed envelopes. The cover letter explained the purpose, and assured confidentiality. Our data collection efforts yielded a total of 193 questionnaires out of which 185 were usable, for a response rate of 61.6% (185 out of 300). The average age of respondents was 41.25 (SD = 6.52), with a range from 36 years to 45 years; 90% were males. They had been automobile salespeople for a mean of 8.14 years (SD = 7.9) and their average tenure at current dealership and average sales experience were 5.26 years (SD = 6.09) and 11.7 years (SD = 9.8), respectively.

Survey Development

A self-administered cross-sectional survey was developed to measure all variables at the individual level. For salesperson effort and sales performance, we relied on existing scales. We developed the measures for perceived customer product knowledge in the following steps. First, we specified the domain of the construct through a review of pertinent literature. Second, we operationalized the construct and developed the initial pool of items. Then, in-depth interviews were conducted with four industry sales representatives (not part of the survey), who indicated whether the questionnaire was easy to understand and consistent in terms of interpretation. Accordingly, initially proposed scales were refined. We present the full battery of scales employed, items loadings, and literature sources in Table 1 and detail measurement results in the next section.

Measures Salesperson Effort (α=.88)

The four items measuring salesperson effort were adapted from Dixon, Spiro, and Jamil (2001). Respondents indicated their level of agreement on a seven-point Likert scale with statements ranging from "strongly disagree" (1) to "strongly agree" (7).

Perceived Customer Product Knowledge (α=.90).

The scale for perceived customer product knowledge was composed of six items. A seven -point Likert scale asked respondents to indicate their level of agreement with statements ranging from "strongly disagree" (1) to "strongly agree" (7).

Sales Performance (α=.90)

The dependent variable of sales performance was measured with five items adapted from the scale developed by Behrman and Perrault (1982). These measures reflect salespeople's evaluation of themselves with respect to achievement of sales objectives and have been used extensively in past research (e.g., Sujan, Weitz, and Kumar, 1994). Respondents were asked to rate each dimension of their sales performance as "Compared to most salespeople I am" on a seven-point semantic differential scale (1 = "much worse" to 7 = "much better"). Adaptations were made to capture the automobile sales context and one item, "converting prospect to customer," was added.
Preliminary analysis examined age and experience as potential covariates. The effect was not significant and therefore, they were not included in further analysis. In Table 2, we present descriptive statistics and a correlation matrix for the variables of interest.

TABLE 1:
Measures and Psychometric Properties

Constructs	Factor Loadings		
Sales performance (Adapted from Behrman and Perreault, 1982: α = .90) [b]			
Compared to most car salesperson I contribute to my dealerships acquisition of market share	0.04	**0.864**	0
Compared to most car salesperson I generate high volume of sales dollars	0.129	**0.869**	-0.027
Compared to most car salesperson I quickly generate sales of new additions to car inventory	0.067	**0.857**	0.083
Compared to most car salesperson I convert prospects to customers	0.113	**0.823**	0.137
Compared to most car salesperson I assist the sales manager at achieving goals	0.119	**0.846**	0.046
Salesperson effort (Adapted from Dixon, Spiro, and Jamil, 2001: α = .88) [a]			
About last sale-I worked hard and it paid off	0.013	0.145	**0.786**
About last sale-I tried very hard to make this sale	0.201	-0.048	**0.887**
About last sale-I put in a lot of effort in this sale	0.181	0	**0.901**
About last sale-I gave the effort needed to make the sale	0.006	0.073	**0.677**
Perceived customer product knowledge (newly developed scale: α = .90)[a]			
Most customers know a lot about cars	**0.7**	0.095	0.14
Most customers compare car prices on the internet	**0.863**	0.009	0.048
Most customers compare rebates offered by different companies	**0.76**	-0.012	0.11
Most customers check the invoice price on the internet	**0.864**	0.155	-0.02
Most customers compare features of different brands on the internet	**0.845**	0.134	0.029
Most customers check consumer ratings on the internet	**0.78**	0.15	0.147
Eigenvalues	4.005	3.732	2.759
Variance explained	26.699	24.878	18.395

[a] Seven-point Likert scale anchored by "strongly disagree" (1) to "strongly agree" (7)
[b] Seven-point semantic differential scale ranging from "much worse" (1) to "much better" (7)
Notes: Loadings greater than .60 appear in bold for visual clarity.

TABLE 2:
Correlation Matrix

	Mean	SD	1	2	3
1. Salesperson Effort	6.06	1.02	1		
2. PCPK	4.81	1.25	.210**	1	
3. Sales performance	5.57	.89	.135	.209**	1
Notes: PCPK= Perceived customer product knowledge **$p < .05$					

RESULTS

Validation of Measures

We conducted an exploratory factor analysis in SPSS to assess the underlying factor structures of the items, using the maximum likelihood method. This resulted in a three factor solution, as theoretically expected. Internal consistency reliabilities of the three variables were respectable, with all scales attaining Nunnaly and Bernstein's (1994) suggested Cronbach's alpha level of .80 or higher.

In order to further assess measurement properties, next, all scale items were subjected to principal component analysis with a Varimax rotation. A clean factor structure emerged; as table 2 shows, all items have substantial loadings on their intended factors and not on other factors, thereby confirming discriminant and convergent validities, respectively.

Because both dependent and independent measures stem from the same respondents with the same questionnaire format, potential for common method bias exists. To diminish the potential impact of common method variance, several steps were taken in developing the instrument (Podsakoff et al., 2003). First, in order to reduce socially desirable responses, we promised anonymity and assured respondents that there were no correct or incorrect answers. Through the pretest, we ensured there was no ambiguity in the scale items. Second, following Rindfleisch et al.'s (2008) suggestions, we used a combination of semantic differential and Likert scales for different constructs. Third, constructs were ordered on the instrument in such a way that the predictor variable did not precede the criterion variable. Finally, we ran a post hoc test and performed exploratory factor analysis (EFA) on all items. EFA yielded a 3-factor solution accounting for 70% of the total variance with each factor having an eigenvalue greater than 1. The factor which made the largest contribution to variance in the model, sales performance (variance explained = .33), accounted for less than half the sum total of the variance explained by all three factors (Menon et al., 1999, p. 31). Thus, the influence of common method bias, if any, was negligible.

Approach to Analysis

Average scores of the item parcels representing each construct were used in a moderated regression analysis where, sales performance was regressed on salesperson effort, perceived customer product knowledge, and salesperson effort x perceived customer product knowledge interaction. We mean-centered the variables before creating the interaction term to reduce any collinearity between the main and interaction effects (Cohen et al., 2003). The estimated equation is as follows:

Sales Performance = b_0 + b_1(Salesperson effort) + b_2(Perceived customer product knowledge) + b_3(Salesperson effort x Perceived customer product knowledge) + e.

HYPOTHESES TESTING

Table 3 displays unstandardized estimates of the multiple regression model. To begin our analysis, we first entered the main effects of the predictor and the moderating variable involved, but not the interaction (main-effects only model). Next, we included the two-way interaction (full model). Comparison of these two models indicates significant improvement in the model fit when the interaction term is included. Table 3 reports overall significance of the full model with the additional interaction effect (change in F and the associated change in R^2). Since change in F > $F_{critical}$, the full model with the interaction demonstrates better fit than the main-effects only model does. This also indicates that the full model with the two-way interaction terms has significantly more explanatory power than the main-effects-only model as well as a good fit as suggested by F (3,185) = 5.12, $p < .01$ and multicollinearity between the independent variables was not evident (variance inflation factors < 10).

Results of the regression analysis of the full model indicate that the two hypothesized main effects, in support of H_1 and H_2, are significant at the .05 level. In H_1, we expected salesperson effort to be a positive predictor of sales performance and it is supported (b_1 = .12, $p < .05$). Turning to H_2, we observe that perceived customer product knowledge has a positive effect on sales performance (b_2 = .13, $p < .05$), as per our expectation. This confirms the support for H_2. Examining the interactions effects reveals that the relationship between salesperson effort and sales performance is negatively moderated by perceived customer product knowledge (b_3 = -.11, $p < .05$).

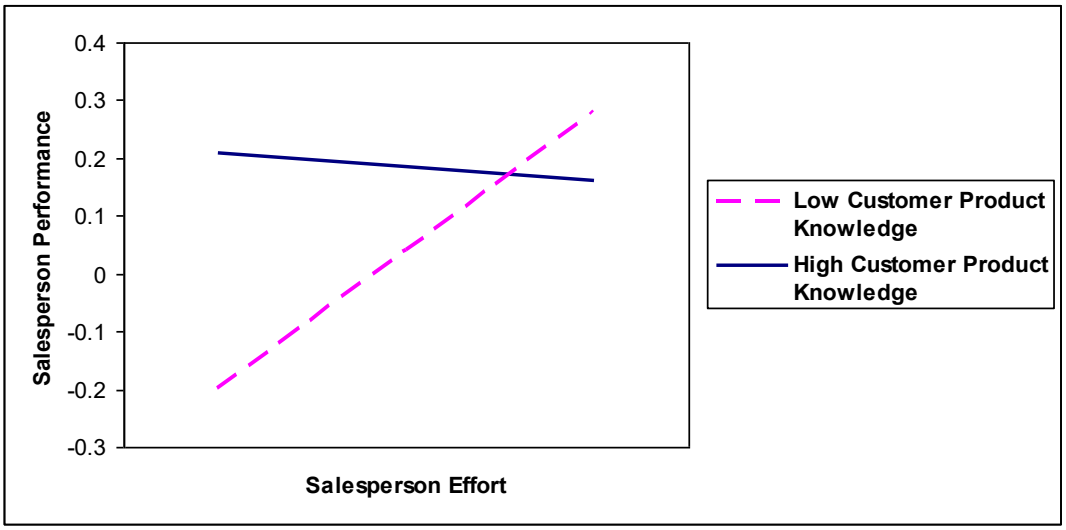
To further analyze and demonstrate the nature of this interaction, we conducted a simple slope analysis following Cohen et al.'s (2003) recommendation. This method helps interpret whether and how the intercepts and slopes of the regression equation differ at various levels of the moderator. That is, how the relationship between salesperson effort and sales performance is contingent on the level of perceived customer product knowledge. Two lines were positioned on the graph to demonstrate how the slope changes at differing levels of perceived customer product knowledge. The corresponding plot appears in Figure 2.

TABLE 3:
Regression Analysis: The Effects of Salesperson Effort and Perceived Customer Product Knowledge on Salesperson Performance

Independent Variables	Hypothesis	Main Effect –only Model	Full Model
Salesperson effort	H_1	.08* (1.21)	.12** (1.78)
PCPK	H_2	.13** (2.51)	.13** (2.46)
Effort x PCPK	H_3		-.11** (-2.37)
F value		4.74*	5.12***
Sig. of F change			.03
Model R^2		.05	.08
Adjusted R^2		.04	.06

Notes: PCPK= Perceived customer product knowledge. For each variable, the reported values are unstandardized beta with corresponding t-values in parentheses. *N*=185. Two-tailed significance tests *$p < .10$; **$p < .05$; ***$p < .01$.

FIGURE 2:
Interaction of Salesperson Effort x Customer Product Knowledge



CONCLUSIONS

Discussion

In many industries, salespeople are the focal point for forging relationships with customers. Sustaining these relationships goes a long way in determining the sales performance and in turn governs the firm's bottom line (e.g., Hughes and Ahearne, 2010). With this study, we set out to enhance understanding of the effect of perceived customer product knowledge on sales performance. While knowledge-based sales literature has focused on certain aspects of customer knowledge (e.g., Menguc, Auh, and Aypar, 2013; Rapp et al., 2008), this is the first known study to place emphasis on the impact of perceived customer product knowledge on sales outcome. Given the variance in customer product knowledge, understanding its potential ramifications on sales performance holds significant importance.

Based on a sample of automobile salespeople, this study examined the moderating role of perceived customer product knowledge on salesperson effort-performance link. To that end, we illustrate an important nuance: the positive impact of salesperson effort on sales performance is weakened when perceived customer product knowledge is high. Consistent with our prediction and largely in agreement with prior research, we also find the main effect of salesperson effort and perceived customer product knowledge on salesperson performance to be positive and significant. Depiction of a high product knowledge customer as a double-edged sword is novel and offers implications for both theory and practice.

Theoretical implications. This study contributes to the literature in four important ways. First, by investigating perceived customer product knowledge as a moderator, we stretch the current understanding of the nature of salesperson effort-performance link. Second, by investigating how salesperson effort interacts with perceived customer product knowledge, this study builds on recent scholarly interests about how salesperson performance may be shaped by the interplay of external (i.e., perceived customer product knowledge) and internal resources (i.e., salesperson effort) available to salespeople (Murshed and Sangtani, 2016). Third, by focusing on perceived customer product knowledge, this research enriches the application of knowledge related work in the sales management literature. Thus, it adds to the emerging sales research steam based on the knowledge-based-view of the firm (DeCarlo, Laczniak, and Leigh, 2013; Rapp et al., 2006). Finally, this research brings new understanding to the work of Homburg, Müller, and Klarmann (2011b), who show there might be times when customer oriented selling would not maximize sales performance. Our findings that effectiveness of salesperson effort could be context specific is compatible with their work.

Managerial implications. Due to scarce time and resources, salespeople often need to decide how much effort they should expend on individual customers for greater impact (e.g., Homburg, Bornemann, and Kretzer, 2014). This research offers direction to help guide these decisions by leveraging perceived customer product knowledge. First, this work demonstrates that customers with low product knowledge may require more intervention from the salesperson, and hence, salespeople would be well advised to expend relatively higher levels of effort on these customers. Based on this notion, we contend that when dealing with customers with low product knowledge, a salesperson should spend significant time to work up the sales pitch, communicate the product information, and close the sale. The findings add important clarity to Homburg, Droll, and Totzek's (2008) contention that to attain higher profitability, efforts could be strategically directed toward specific customers. Previous investigations tend to ignore the possibility that customers with high versus low product knowledge may merit different levels of attention from salespeople. With better insights, the current research illuminates mechanisms for how customers with high versus low product knowledge might produce value and contribute differently to sales performance. For example, based on our results, B2B straight rebuy or routine re-purchase settings characterized by more knowledgeable customers may not warrant a lot of attention from salespeople.

Second, in light of our findings, we urge practitioners to consider a more tempered approach to manage salesperson effort for more effective sales performance. There is a widespread belief that the more effort a salesperson puts in, the better he or she will perform. This research raises the question whether an optimal level of effort exists in regard to sales performance. We suspect the answer to this question is yes, and it lies at the level of customer product knowledge. Our findings are of direct relevance to managers as we identify specific condition under which it is more (or less) beneficial to ramp up salesperson effort. Our analysis indicates that salespeople may not need to expend a high level of effort on customers with high product knowledge and should consider shifting to other means of communication to engage them. This aligns with the notion that customers with high product knowledge demand relatively less face time and may not have the patience to go through lengthy sessions to review something they are already aware of. Our findings also imply that customers with high product

knowledge may devalue salesperson effort. We speculate that customers with high product knowledge prefer some autonomy and firms may bear a potential negative impact if the salesperson intervention were to undermine that. Thus, according to our findings, exerting additional effort towards customers with high product knowledge may not be conducive to improved sales outcomes. On the other hand, we contend that customers with low product knowledge may require a comfortable environment to communicate their needs without the fear of being embarrassed; which in turn, warrants intensified effort from salespeople. Casciarao and Lobo (2005) label salespeople as 'competent jerk' when they do not make customers feel comfortable and tend to overwhelm them. Based on our findings, salespeople can avoid such a scenario by ramping up effort and creating a comfort zone for customers with lower product knowledge.

Limitations and Future Research Considerations

The current study has several limitations. These, in turn, raise issues that could be addressed by future research. First, there are limitations associated with research design and measurements that need to be acknowledged. For example, salesperson effort was based on the last sales, while perceived customer product knowledge was based on salesperson's perception of all the customers. Further, our analysis is based on self-reported perceptual measures which tend to suffer from subjectivity bias. Cross-sectional design does not facilitate testing of the causal sequence and thus, cannot capture the temporal dynamics and the underlying process explanation. Further research could add value in this regard by taking a longitudinal approach. Second, future researchers might want to use dyadic data to reconcile the perspectives of both salesperson and supervisor, which might lend more insights into issues related to customer product knowledge and salesperson effort. Taking a customer perspective on this topic also represents a worthwhile path forward. Third, because the sample was comprised of salespeople from a single industry, our results should be generalized with caution. Even though cleaner effects were obtained by controlling for industry-specific factors, reexamining this model in other types of selling situations (e.g., consumer packaged goods) might allow for better scrutiny of the relationships among these constructs.

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ORGANIZING A FRAMEWORK FOR CUSTOMER VALUE MANAGEMENT IN ONLINE MEDIA RELATIONSHIPS

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The study aims at building a basis for customer value management (CRM) for online news channels and encourages managerial focus on customer relationship management to build a long-term vision rather than short-run profits of customer relationships. Today managers wish to consider also non-monetary social rewards for co-creating value and to enhance customer relationships (Vargo & Lusch, 2010). Online relationships have become multi-faceted, and customers create value for the company in online transactions but also in many other ways, which also need consideration in order to understand the full potential of an online customer. Based on academic literature and prior research on CRM, the study deepens understanding of the value creation of online customer relationships and suggests monetary, social as well as visitor value to be gained for the company. The article takes a stand on the wide availability of customer data, which enables companies to have a truly holistic view of customer relationships, including new relational and economic aspects of customer value. Furthermore, the article considers the availability of monetary and relational data on customer relationships as a major asset for the development of customer value management in online environments. The managerial contribution of the paper is in building a holistic view of customer relationship value in the online context, recognising the relational value components as one of the key aspects of online relationship, and in presenting nine manageable value generating components.

INTRODUCTION

Due to changing habits of media consumption and digitalization of the media industry, new managerial focus on customer relationships is well justified (Aitamurto & Lewis, 2012; Hakaniemi, 2014). Due to the rapid digitalization of the business in media industry, managing the value of online customer relationships has become especially relevant from the company perspective. The vast supply of news and other content, often free of charge on the Internet, has changed the habits of news consumption. Consumers now have the power to choose, and customer loyalty is ever more difficult to achieve. Consumers of news have forced a media company to shape the marketing strategy towards a more customer-centric direction (Aitamurto & Lewis, 2012). Digitalization of communication has set a challenge for many companies, as online customers expect companies to meet them through digital channels with new rules for engagement (Lipiäinen, 2014). Despite the change in news consumption and consumer expectations, it seems that many companies still focus on one-directional communications with established digitals tools. The advances in digital marketing and measurement tools remain largely unexploited as companies have simply lacked the resources and knowledge to fully exploit the advantages of the fast-developing digital environment (Royle & Laing, 2014; Järvinen et al. 2012).

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The study focuses on building a basis for customer value management (Verhoef & lemon, 2013) for online news channels. Customer value management aims to maximize the value of a company's customer base by analysing individual level data on customers. The resulting information is used to acquire and retain customers and to drive customer behaviour with the developed marketing strategies in such a way that the value of all current and future customers is maximized (Morgan & Hunt, 1994; Verhoef & Lemon, 2013). With this aim, the study is also in line with O'Reilly and Paper, (2009) encouraging managerial focus on CRM to build a long-term vision rather than short-run profits.

Despite the obvious recent academic interest in customer value management (Verhoef, et al., 2007; Kumar, 2010; Parvatiyar & Sheth, 2002; O'Reilly & Paper, 2009), the discussion of the

overall value of online customer relationships seems somewhat incomplete. An inclusive perspective to customer value in online relationships, including both the relational and economic components of value, has so far been adopted by relatively few studies (Kumar et al., 2010; Weinstein, 2002; Reinartz et al., 2000). However, in these studies of customer relationship value, some relevant components contributing to online relationship value have been neglected. Furthermore, the availability of monetary and behavioural data is a major asset for customer value management in online business environments. Therefore, this conceptual study contributes to prior academic research by extending new components in the discussion of customer relationship value and considers *customer engagement value* as a holistic view of customer value management in online relationships.

Customer engagement (Brodie et al., 2011) is a strategic way of a valuing each customer relationship, acknowledging the various aspects of value created and enduring over time for the company (Yang & Coffey, 2014; Schau & Arnould, 2009; Kumar et al., 2010). Online customers are argued to be valuable for the firm, as a buyer but also as a co-creator, an actor (Vargo & Lusch, 2008; Vargo & Lusch, 2010), and part of a network (Ford, 2011; Heinonen et al., 2013).

The paper answers one of the most critical managerial questions in the news industry: *"How is the value created for a company through online customer relationships, and how could the value be measured and managed?"* To answer this question, the study will first discuss the concept of customer engagement value as a desired outcome of customer relationship management (CRM) in the online environment. Then, the distinction between the concepts of visitor value and monetary and social value is defined. Considering the variety of research in the area of customer value, these concepts formerly seemed somewhat blurred.

The contribution of the paper is in conceptualizing the value of online customer relationships in the media industry based on the economic and relational value. The value of customer behaviour is analysed in terms of measurable monetary, social and visiting activities. Recognising social and visitor value (Wang et al., 2004, Lin, 2004) of online customers is seen as one of the key aspects to holistic value of online customer relationships. By presenting nine manageable online relationship value generating components, the paper contributes to customer value management in the online environment. Implications for management are given in form of a framework to help measure and manage customer relationships according to value potential and benefit of each customer for the company.

The structure of the paper is as follows: first the literature review looks at prior research on customer relationship management, customer engagement and customer value management relevant to this study. Table 1 summarizes these studies. The section that follows presents the three concepts of value in online relationships, and the value components in the online context are organised as generating either of social, monetary or visitor value for the relationship. Then a framework is presented for managing the relationship value in online news channels. The last section discusses the implications of the study and suggests some avenues for further research.

LITERATURE REVIEW

From CRM to Managing Customer Engagement

An incisive argument by Kumar could be adopted as a leading idea for the article: *"When customer engagement is effectively tracked and managed, firms will increase their profits"* (Kumar, 2015, p.5).

The literature defines CRM as "a comprehensive strategy and process of acquiring, retaining and partnering with customers to create *superior value* for the company and the customer" (Parvatiyar & Sheth, 2002, p.5). Prior academic research pertinent to this study typically emphasizes one aspect of the value of a relationship at a time (Schmitt, et al., 2011; Leone et al., 2006). The literature on customer relationship management broadly recognizes the monetary value of customer-firm relationship, and discusses customer *profitability* (Gupta et al., 2004; Rust

et al., 2004; Pfeifer et al., 2004), *customer life-time value* (Kumar, 2010; Reinartz & Kumar, 2000; Venkatesan & Kumar, 2004; Gupta et al., 2006) and *customer equity* (Zeithaml et al., 2001;Weinstein, 2002; Verhoef, 2003; Bijmolt et al., 2010). The literature discusses the social value of online relationships in terms of *referral value* (Rust et al., 2004; Kumar, 2010; Schmitt et al., 2011), *co-creation value* (Prahalad & Ramaswamy, 2004; Vargo et al., 2008; Payne et al., 2009), *influencer value* (Ots, 2009; Kumar, 2010; Choudhury & Harrigan, 2014) and *customer knowledge value* (Allee, 2000; Bueren et al., 2013).

Customer value management acknowledges the customer heterogeneity, exploits the available data and focuses on increasing customer value as a key objective (Verhoef & Lemon, 2013). The information of customer analysis is used to acquire and retain customers and to drive customer engagement behaviour with marketing strategies *to maximize the value of all current and future customers* (Verhoef & Lemon, 2013). As Mersey et al., (2010) argue that in an online news channel context, positive customer experience leads to higher engagement of the audience, which is positively associated with readership and leads to profits (Picard, 2008, Holmberg, 2013).

The value of online user behaviour is discussed in the literature in terms of recency, frequency and monetary value, and a RFM model (Gupta & Zeithaml, 2006) is presented in several studies. More recent studies, also well in line with this study, have discovered the concept of *customer engagement value in an online environment* (Calder et al., 2009; Yang & Coffey, 2014). The level of online engagement value can be realized through multiple participatory elements in the relationship as well as the recency, frequency and volume aspects. The academic discussion on *customer engagement value* (CEV) also touches upon the economic value of the relationship (Venkatesan & Kumar, 2004). Therefore, the literature sees purchasing behaviour, referral behaviour and user volume as the major manifestations of customer engagement, the level of which can also be calculated. Customer engagement as a concept (Verhoef, Reinartz, & Krafft, 2010; van Doorn et al., 2010b) seems a strategic way of looking at online customer relationships. According to Kumar et al. (2010), customer value in customer relationship management is driven by the nature and intensity of customer engagement regarding the firm and its product or service offerings. Their study depicts several components of customer relationship value, but ignores some components, found especially relevant in this paper due to its industry perspective. The literature on online customer engagement relevant to this study is summarised in Table 1 below.

The literature on customer engagement value is extensive (Table 1); nevertheless, academic attention towards customer engagement as a separate construct seems somewhat limited (Verhoef et al., 2007). It is notable that prior literature on customer value often takes the perspective of value received by the customer (Cronin et al., 2000; Sirdeshmukh et al., 2002; Payne et al, 2007). Here the primary focus is on the value gained from customer relationship for the company.

Prior studies on customer engagement value from the perspective of media-customer relationships appear to be scarce. As Brodie et al. (2011, p.262) state, "*future research is required to explore the focal networked dynamics across different engagement contexts*". And according to the authors, research specifically addressing engagement in the online environment is expected to generate further insights into the Customer Engagement (CE) concept. This research addresses the expressed need for further research by responding directly to context-specific managerial needs (Brodie et al., 2011) and the measurement of CE (Bolton, 2011). It seems that most of the research in this area has been done in connection with three areas: usage and gratification studies, taxonomical studies and media-market matching studies (Heo & Cho, 2009).

Media business is still largely based on readership (Siles & Boczkowski, 2012), and here customer engagement is strongly associated with *readership*. In the literature, customer engagement is defined as going beyond transactions, beyond purchases and resulting from motivational drivers. Examples of customer engagement in the media context are mainly behavioural expressions, both

TABLE 1:
Literature Review of Online Customer Engagement Relevant to the News Industry

Author	Data	Main Findings
Bijmolt et al., 2010	Conceptual study	Classification of analytics to examine customer engagement behaviour. Customer engagement may be generated in different stages of the customer life cycle: customer acquisition, customer development (growth), and customer retention (churn and win-back).
Bowden, 2009	Conceptual study	Views CE as a psychological process, which drives customer loyalty. Proposes a framework for segmenting customer–brand relationships based on customer engagement and loyalty.
Brodie et al., 2011	Theoretical analysis of the CE concept.	Provides a general definition of the conceptual domain of customer engagement and future research implications based on five fundamental propositions drawn from the literature.
Bueren et al, 2013	Case studies of three European companies in the financial sector	Focuses on how concepts of Knowledge Management (KM) can be applied within the area of CRM. Describes cases in which the performance of six CRM sub processes is improved by applying the CKM model. Four knowledge aspects: content, competence, composition and collaboration support the CRM sub –processes.
Calder et al., 2009	Users of 11 sites, a median sample size of n= 1,141 and a total sample size of n=11,541	Shows that online media involves a distinct form of engagement, which has its own impact on advertising effectiveness.
Cui et al., 2015	A large direct marketing dataset from a U.S.-based catalo company consisting of 106,284 consumers with 361 variables for each customer.	Addresses the popularity of direct marketing as a tool for promotion and customer relationship management. Focuses on the need of methods of intelligent decision support for customer selection and augmenting the profitability of targeted marketing with limited resources. Suggests a POCO -model for targeting the high value customers.
Cvijikj & Michahelles, 2013	Quantitative analysis of gathered dataset consisting of posts obtained from 100 sponsored FMCG brand pages.	Analysed the characteristics of the content created by companies as factors that might influence the level of online engagement on Facebook brand pages. As a result, companies should prepare clear engagement strategies for appropriate content type, media type and posting time in order to increase the level of engagement.
Heinonen et al., 2013	A conceptual analysis.	Focuses on customer-company interactions, extending the value construct through a customer dominant value perspective, recognizing value as multi-contextual and dynamic.
Huang et al., 2013	An analysis of online search consumer data (n=216) from China.	Suggests positive impacts of social identification on behavioural engagements of information seeking, interaction sharing, and knowledge creating, and purchasing intention.
Kumar et al., 2010	Conceptual study	Presents a framework for determining total customer engagement value (CEV) based on four components: customer lifetime value (CLV), customer referral value (CRV), customer influencer value (CIV), and customer knowledge value (CKV).
Kumar & Mirchandani, 2012	Case study of Hokey Pokey Ice Cream company.	Presents customer influencer effect (CIE) and customer influencer value (CIV) as major determinants for social media campaign success. Case study showed increases of 49% in brand awareness, 83% in ROI and 40% in the growth rate of sales revenue. Seven step approach for social media analysis.

TABLE 1 (*continued*)

Author	Data	Main Findings
Lin, 2003	A survey study in a quota sample of 180 respondents attending an e-commerce exposition in Taiwan. Online traveling services and (VOD) presented the e-service categories of the survey.	The empirical study suggests that commitment plays a crucial intervening role in the relationship of customer satisfaction and perceived value to loyalty. Loyalty and commitment should develop if the formation of customer satisfaction, trust, and perceived value is appropriately managed.
Manganari, et al.,2012)	241 business school students took part in an experimental study on travel website.	Online retailers in the travel sector should focus on enhancing consumer perception of control during the online shopping trip. Enabling consumers to become actors in the online store increases positive perceptions.
Malthouse et al., 2013	Conceptual study	Examines how CRM needs to adapt to the rise of social media. Explores the pitfalls of the convergence, such as organization`s lack of control over message diffusion, big and unstructured data sets, privacy, security, shortage of qualified manpower, measuring the ROI, and strategies for managing employees, customers and content marketing.
Pai & Tsai, 2011	Quantitative analysis of 537 responses on email questionnaire. Data obtained from three large Taiwanese online retailing stores.	Virtual community participation significantly enhances loyalty intentions, through both social mechanisms (via community identification) and psychological mechanisms (via trust and satisfaction). Community identification is a pivotal factor for enhancing customer loyalty intentions.
Payne, et al., 2009	Case study in car industry. Several personal interviews of different focus groups, and an analysis of a customer survey, customer blogs, company data, website.	The study examines the co-creation of value in the context of service-dominant logic, proposes a conceptual model of co-creation for managing brand relationship experiences and develops a case study about an innovative service which utilizes opportunities for co-creation that reflect changing consumer preferences and new developments in mobile technology.
Rishika et al., 2013	Customer data of a large specialty firm with wine and like products in the north-eastern United States.	Investigates the intensity of the relationship between the firm and its customers as captured by customers' visit frequency. Finds links between customer´s social media participation and the frequency of customer visits to company site as well as the profitability of customers.
Rohm, et al., 2011	Questionnaire completed by 563 customers of Dutch Bank.	Quantitative analysis revealed that company-designed online agents can effectively serve as customer socialization agents, influencing customer attitudes and behaviours and satisfying the demands of new generations of customers for richer online interactions.
Sashi, 2012	Conceptual study	The study develops a model of the customer engagement cycle with connection, interaction, satisfaction, retention, loyalty, advocacy, and engagement as stages in the cycle. Four types of relationships emerge: transactional customers, delighted customers, loyal customers, and fans.
Scarpi, 2012	An online questionnaire to customers of Italian electronic e-retailer. Quantitative analysis of 300 respondents.	Consumers with hedonic orientation, enjoy browsing, have a high profit potential and seem to form a valuable customer base. The data showed that consumer enjoyment on the internet and of the internet translates into higher profits for the retailer: fun does pay off for online retailers.

TABLE 1 (*continued*)

Schau, 2009	Empirical, ethnographic, analysis of nine online brand communities.	Collaborative consumption and value creation in brand communities has consistency. The study organizes the current knowledge of collective brand-based actions, and suggests what is needed to support collaboration.
Sridhar & Srinivasan, 2012	Data from 7,499 consumers' online ratings and reviews of 114 hotels in Boston and Honolulu. Quantitative analysis.	Identify a moderating role for social influence from the online reviewer community on the effects of a reviewer's product experience on his or her online product rating.
van Doorn et al., 2010b	Conceptual study	Addresses "customer engagement behaviours (CEB)", which result from motivational drivers, including WOM activity, C2C- interactions and/or blogging activity. A theoretical model is developed linking customer engagement behaviours to specific customer-, firm-, and contextual antecedents and consequences. A difference to customer attitudes such as trust, satisfaction and commitment is explained.
Yang & Coffey, 2014	National panel survey of broadband users (N = 200) investigates the use of interactive features on internet video sites.	Audience interactivity is related to audience value. The study defined audience interactivity based on people's frequency in using interactive features. Three groups were identified—non-interactive audience, average audience, and interactive audience of which interactive audiences are younger, more engaged online, and have higher electronic word-of-mouth value than non-interactive audiences.

positive and negative. A concrete example of a positive expression is posting a brand message or a blog on the site (Calder & Malthouse, 2004). An example of a negative engagement behaviour is organizing public actions against a media company (Van Doorn et al., 2010). Bunker et al., (2013) suggest that involvement, rather than solely motivating consumers "to like a company" would be the key to success in online relationships. Calder et al. (2009) discuss further the concept of media engagement, focusing on the consumer's psychological experience while consuming media. They distinguish media engagement from mere liking, implying that engagement among media audiences, readers, is a stronger state of connectedness between the customer and the media than liking alone.

To position media engagement as an industry specific term in to the broader picture of customer engagement seems justifiable. The definitions of customer engagement in the literature similarly to Calder and Malthouse (2008), and Calder, Malthouse and Schaedel (2009) reflect behavioural or psychological aspects and concrete actions made in the relationship as well as the level of customer-firm connectedness. Kumar et al. (2010, p.297) describe "the active interactions of a customer with a firm, and with other customers, whether transactional or non-transactional in nature" and Van Doorn et al. state that "*engagement is what occurs when a prospective consumer's mind is turned on to a brand idea enhanced by the surrounding context*" (2010, p. 254). Martin et al., (2014) found that connectedness to other brand users has a positive impact on brand commitment. Users who feel linked to brands users are more committed to that brand than other consumers. According to Sashi (2012, p.257), *"customer engagement seems to go beyond awareness, beyond purchase, beyond satisfaction, beyond retention, and beyond loyalty*". In many ways customer engagement represents the evolution of marketing from market orientation to relationship marketing.

The Value Components of an Online Relationship

Measuring and managing customer value have traditionally focused on customer acquisition and retention, and increasing customer spending with a company over time (Kumar,

2008b). By viewing customers as assets, and systematically managing these assets, a firm can identify the most appropriate marketing actions to acquire, maintain and enhance customer relationships, and thereby, maximize financial returns (Berger et al., 2002).

In the socially networked online environment, the concept of *customer engagement value* broadens the perspective of the company from economic and purchasing value of customers to social behaviour such as customer *influence value*, customer *referral value* and customer *knowledge value* (van Doorn et al., 2010; Kumar et al., 2010).

The important aspect to online relationships adopted in this section is that the value of a customer is not limited to the profit from each transaction. Instead, the value of customer relationships is created and weighted differently based on several monetary, social and visitor value components. Through social media activities, firms influence customer engagement and are able to increase visit intensity and customer profitability (Rishika et al., 2013)

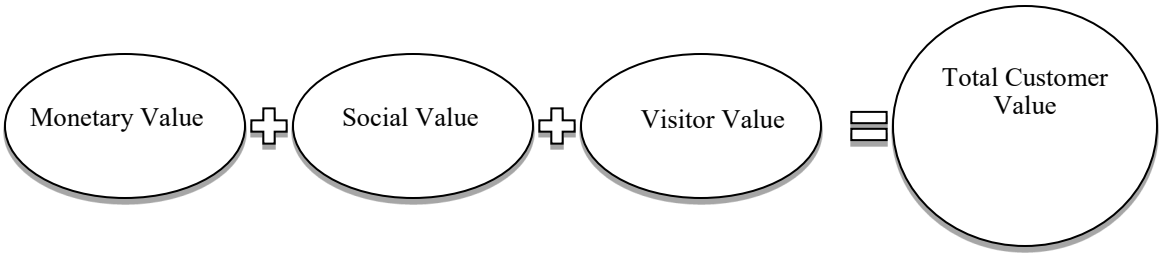
This research argues, that *customer engagement value* (Verhoef et al., 2010) offers an important aspect to measuring and managing customer relationship value in digital business environment. For an online media it offers a holistic view to online relationships, including the transaction value, and the behavioural manifestations of a customer with a rather indirect impact on firm performance.

Next, the three concepts of value in online relationships – monetary, social and visitor value presented in Figure 1 – are discussed and existing managerially relevant metrics suitable to measure the presented value components are suggested. Subsequently, a framework for online customer value management is presented in detail.

Monetary Value

In academic literature on customer relationship management, Customer Value is most often presented as *customer purchase value* (Kumar et al., 2004; Tsai, 2005; Moe & Fader, 2004, Fader et al., 2005) and *customer life-time value* (Venkatesan & Kumar, 2004; Reinartz & Kumar, 2003; Berger & Nasr, 1998). Discussions of monetary value in customer-firm relationships is often geared around customer profitability (Pfeifer, 2005), customer life-time value measurement or customer equity (Lemon et al., 2001) and the overall economic value of the customer base (Berger et al., 2002). Customer lifetime value as a metric for selecting customers and designing marketing programs is strongly supported in academic literature, and the amount of academic research on customer life-time value is quite exhaustive (Reinartz & Kumar, 2003; Venkatesan & Kumar, 2004; Kumar, 2010; Rust et al., 2004). A great amount of empirical evidence of the usefulness of customer life-time value as a metric compared with other customer based metrics can also be found (Venkatesan & Kumar, 2004). Based on prior research, a general assumption can be drawn that the current customers of a company also provide the most reliable source for future revenues and profits (Rust et al, 2004, Gupta et al., 2006). The customer life-time value (CLV) metric in customer relationship management has gained a firm position, and theoretically CLV could be thought to include all aspects of value creation by the customer. Nevertheless, in practice it is

FIGURE 1:
The Concepts of Value in Online Relationships



frequently measured only via actual purchase behaviour. CLV calculations are also primarily based on the customer's transaction behaviour (Gupta et al., 2006; Rust et al., 2004), and this is explained resulting from the frequency of category purchases or the average quantity of the purchase (Kumar et al., 2010).

The monetary value of an online news channel subscriber has traditionally referred to the economic value of the subscription last purchased by a customer, and reported in terms of audience revenue or net value of subscriptions (State of the Media). Similarly, the total value of the subscriber base in the media industry is generated by summing up the economic value of effective subscriptions at the time of measurement. Similarly to the e-commerce field (Schefter & Reichheld, 2000), in the news industry, retention and subscriber CLV have been secondary to acquisition of new customers (Chen & Hitt, 2002). However, a shift in strategy towards customer life-time management and long-term, economically viable customer relationships provides a clear business opportunity for the industry with a base of digital customer relationships. In the context of an online news channel with a paywall (e.g. FT.com, NYT.com, and WSJ.com) or other restricted access to content, the registration of an online customer is the beginning of a customer relationship. The moment of online registration could be considered the starting point and basis for customer life-time measurement.

Social Value

Social media technologies have revolutionized the way businesses and consumers interact. The customers who expect interactions among themselves in these networks also expect a similar level of interaction from their business counterparts (Choudhury & Harrigan, 2014). The literature widely discusses customer referral value (Rust et al.,, 2004, Kumar et al., 2010, Schmitt, Skiera, & Bulte, 2011) co-creation value (Prahalad & Ramaswamy, 2004; Vargo et al., 2008, Payne et al., 2007) and influencer value (Kumar et al., 2010). Customer knowledge value (Allee, 2000, Bueren et al., 2013) is also a relevant social value aspect of online relationships.

Customer referral value is a component of social customer value and particularly useful in the online news industry. Customer referrals to journalistic content or brand are expressions of engagement of customers to an online news channel. Engaged customers more often buy the product, recommend the product to others and bring in new prospects (Kumar et al., 2010). However it is notable that customers do not necessarily have to be buyers of the product to be able to refer to it, and thus create value for the company (van Doorn et al., 2010). In the literature, customer referral value is described as current customers converting prospects in their social network, both online and offline, into actual customers for which they are rewarded (Kumar et al., 2010, p.1). However, in this paper referral value relates to the non-incentivized referral of new customers. New visitors are invited to an online news channel by other readers referring to articles or newsfeeds of personal interest (Venkatesan & Kumar, 2004).

All visitors to an online news channel brought in organically or by referrals, are valuable in two respects: first, every visitor becomes a part of the total audience inventory sold to advertisers, and second, he/she is also a potential new subscriber. Self-motivated referrals by customers are of particular value for an online news channel. Recommendations, as links to news items shared in social networks of customers carry the potential of bringing in new audience and customers paying for the news. Customer referral value can be calculated by using a customer's actual past referral behaviour (Kumar et al., 2007), and if referrals are not firm-initiated or rewarded, the actual acquisition cost per one customer is zero.

Customer knowledge value is also a social component of customer value (Venkatesan & Kumar, 2004). Successful companies, such as Amazon, have realized that customers are more knowledgeable than one might think, and consequently seek knowledge through direct interaction with customers (Gibbert et al., 2002). The literature also points out that customer-driven companies need to harness the knowledge of those who buy their products (Gibbert et al. 2002; Baker, 2000; Davenport and Klahr, 1998). Customer Knowledge Management (CKM) is seen as a strategic

process where customers as passive recipients of products and services transition to become active recipients and are seen as knowledge partners for the company (Gibbert et al., 2002). Existing literature suggests that customer-to-customer know-how exchange is reliant on the interaction between the company and its customers and the antecedents of know-how exchange arise from the motivation, opportunity and ability (Gruen et al.,2006; Siemsen et al., 2008) of customers to use and share the knowledge value for the benefit of others. Constructive criticism or complementary comments by readers are examples of customer knowledge value in the media industry. Customers could, if encouraged to, complement the news, and enrich the content with their specific knowledge, and the outcome would be a more comprehensive coverage of the topic for others (Meadows, 2012). However, the industry has not succeeded in encouraging this kind of participatory journalism, and as a result, participation opportunities and user-generated content remain rather scarce (Nguyen, 2008). Again, this is not surprising considering the recent studies (Järvinen et al., 2012; Royle & Laing, 2014) identifying skills gap in companies, lack in know-how and in allocation of human resources to take proper advantage of available digital marketing and communications tools. The options for enhancing the social value of a media audience (Bruns, 2004) lies in encouraging interactivity with customers to, for example, comment on subjects by simply asking: "Do you have more information on this issue?" or offering evaluation options on stories such as "did you find this story useful? Why or why not?" These kinds of feedback loops are also depicted in the customer value/retention model by Weinstein (2002).

Customer influencer value indicates the customer's ability to influence other customers to increase purchases, retention and share of wallet through word of mouth as well as bringing in new prospects (Venkatesan & Kumar, 2004; Brodie et al., 2013; Hennig-Thurau et al., 2010; van Doorn et al., 2010). Each time a customer voluntarily generates WOM about the firm and its products, influencer value is increased. If the WOM generated by the customer to others in the network is positive (negative), and/or gets (obstructs) others in the network to become customers and purchase (refuse) additional products, his or her influencer value increases (decreases). Determining the influencer value of an individual customer, the size of his/her personal network is one important indicator. However, it is also plausible that an individual can have a very large network of online social acquaintances but is not necessarily influential within the network (Kumar et al., 2010). The type of network the customer is part of also matters, as some networks are more valuable for the company in the form of a target market of potential customers than others. The personal status of a customer as an authority or a specialist in a field is significant in determining the knowledge value as well as the influencer value of an individual.

Companies can achieve a competitive advantage by leveraging customer competence (Prahalad & Ramaswamy,2004). Customers can actually be a valuable source of new product ideas (Birkinshaw et al., 2006). Hodis et al., (2015) find that *co-creation* is one of the most underused components among brands. They present that with engaged consumers, crowd-sourcing efforts such as product testing, new logos, changes to advertisements and trial run advertisements could be facilitated with moderate costs. Customer co-creation value in the news industry can occur through shared inventiveness, co-design, or shared production of content with the online audience. In customer co-creation, the customer participates spontaneously in the creation of the core offering itself (Lusch & Vargo, 2006). Such behaviour as making suggestions to improve the consumption experience, helping and coaching service providers and helping other customers to consume better are all aspects of co-creation, and hence customer engagement behaviour. Normann and Ramírez (1993) argue that the goal of business is not to create value for customers but rather "*to mobilize customers to co-create value"*(Steinman et al., 2000, p.69). According to Bendapudi and Leone, (2003), encouraging customer participation may represent the next frontier in competitive effectiveness and reflects a major shift from a product-centric to a service-centric logic for marketing (Vargo et al., 2008).

Overall, this service-dominant logic views customers as proactive co-creators of experience rather than as passive receivers of value, and views companies as facilitators of the value co-creation process rather than as producers of standardized value (Prahalad & Ramaswamy, 2000; Payne et al., 2007). For companies operating in the online environment, co-creation can also help to *understand* the customers' points of view and to better identify their needs and wants (Lusch and Vargo 2006). The internet can serve as a platform for such collaboration with customers, providing opportunities to easily offer suggestions and input for the firm (Sawhney et al., 2005). The co-creation value of customers in online news channels can be measured by the activity rate of customers taking part in content creation. Co-creation of content can be realised by producing editorial material as blogs, opinions or columns (Meadows, 2012; Kumar et al., 2010). Customers enriching the journalistic content of online news channels by commenting on stories are co-creators. Karlsson (2010) suggests transparency as a new norm for journalism and explains the transparency of journalism as meaning the various ways of making it possible for online news audiences to get involved in the news production process. Bruns (2004) lists the means of delivering transparency and indicates that users should be able participate in every stage of news production, from gathering news to reporting, publishing, analysis and discussion.

Visitor Value

Visitor value of customers in online environment refers to the frequency of visits and the time spent on the site (Wang et al., 2004). Visitor value is an important indicator of engagement (Calder et al., 2009; Moe & Fader, 2001) and in literature also positively linked to CLV (Venkatesan & Kumar, 2004). Considering the low conversion rate of online visits compared to the offline environment (Moe & Fader, 2004; Cui et al. 2015), it is highly important to consider the value of customer visits as foundation to the customer-firm relationship online (Bucklin & Sismeiro, 2009; Lin, 2004). Regardless of whether a customer purchased on site, his visits to a website may have significant value to firms (Agichtein et al., 2006; Yu et al., 2006; Huang et al. 2009). In the case of commercial online news channels, the visitor value of customers is obvious as every time a customer visits the site he/she creates *page impressions*, which are the currency of advertising sales for the site. Thus, the value of each visitor depends for example on how much he/she browses the content on the site, producing more page impressions every time a new content page is opened. However, other optional or additional metrics for determining visitor value of online customers exist.

In this study the relevant components generating visitor value for an online news media present the *frequency of use*, *recency of use* and *the volume of use* of an individual user. These components are considered to add relational as well as indirectly monetary value to the online relationship and to strongly reflect the level of audience engagement (Yang & Coffey, 2014). The outcome of high visitor value of users in the online news channel context lies in the potential of active customers for content sales (customers who visit most often are more likely to buy) and in the increase of inventory for advertisement sales in the form of page impressions generated by individuals visiting the site and browsing the content and directly convertible to monetary value. High visitor value of customers also reflects high levels of audience engagement, as customers who return to the site frequently and spend a lot of time browsing the content are considered as highly engaged customers.

To draw a clear distinction between the visitor value and monetary or social value of a customer, the outcome of visitor value is the value from the use of the service generated by an individual user during the online visit in the process of consuming the content. Therefore, it does not indicate the social behaviour described earlier as sharing, commenting on nor recommending content or products, neither does it indicate the online purchasing process of customers. The literature makes similar distinctions, as the recency, frequency and monetary (RFM) model (Bijmolt et al., 2010) is presented as a measurement of individual use, that effectively differentiates customer contributions to the business (Ho et al., 2002; Chen et al., 2005). Data and analytics on customer user behaviour is described as

generally the most effective predictive data in customer relationship management in online environments (Rud, 2001). Next, the three relevant components of visitor value and related metrics for online relationship management in the media-industry are briefly explained.

Volume of use of an online customer indicates either high or low interest in the content of the site, and therefore, the potential or non-potential for purchases. The high *user volume* of an online news channel also reflects high engagement of customers and is also an important parameter for advertising sales. Volume of use is commonly measured on the basis of *session duration*, *page views per session* and *visits per visitor*. These three metrics and their definitions come from traditional web analytics (Burby et al., 2007). Session duration is commonly thought of as the amount of time a visitor spends browsing the web site. Page views per session is defined by the Web Analytics Association as "*the number of page views in a reporting period divided by the number of visits in the same reporting period*" (Burby et al., 2007, p.26). Page views per session is often considered a measure of engagement as it means that a customer has or has not browsed the site further and viewed content beyond what is on the landing page. However, this metric is not indisputable for level of engagement or user volume especially in the case of e-commerce sites, as numerous page views made by customers can also be an indication of poor website design rather than high interest in the products. Number of page views (or page impressions) per customer as a metric combined with information on type of content browsed would, however, give a better view of the level of user volume and engagement.

Frequency of use of online service refers to the number of visits made by a customer to a specific website, and reflects the visitor's interest in a product or service. Frequency of use is measured by number of visits by an individual during a specific period (a week, a month, a year). Frequency of use is an important component of behavioural customer value. As mentioned, customers who visit a market participant's website frequently are more likely to pay for the content versus customers who have made just a few visits. In academic literature on retailing, purchasing history is used for predicting future customer activities. The assumption underlying this framework is that customers are most likely to reduce their frequency of purchase before terminating a relationship (Lemon et al., 2001). This assumption is interesting and plausible from the point of view of an online news channel and could be applied in terms of "frequency of visits" also to different phases in an online channel-customer relationship and relationship life cycles.

Recency of use reflects the interval between the time of the most recent online activity, transaction or other activity, and the time of evaluation (Schlosser et al., 2006; Ho et al., 2002). The Web Analytics Association defines the calculation of recency as the time since a unique visitor performed a specific action of interest to the analyst (Suite, 2008). Recency of visit also seems to be one of the most powerful predictors of future behaviour in an online customer, as the more recently a customer has done something, the more he/she is likely to do it again. Recency can predict the likelihood of purchases, repeat visits, social actions and just about any action-oriented customer behaviour, and therefore, has a high potential value (Venkatesan & Kumar, 2004). In the news industry, high recency of use per customer for an online site can indicate satisfaction, retention and loyalty of customers (New York Times, 2014). Customers who visited the online news site in the last week are much more likely to visit this week than customers who signed in 30 days ago. Recent customers are also the most likely to contribute to profits in the future by responding to promotions or simply just coming back by themselves. Vice versa, a high recency customer who stops visiting the site, indicates that other alternatives have been found that fulfil the same motivation for use or his or her needs have changed.

In the customer relationship management context, quite extensive attention has been paid to customer metrics with a strong focus on purchase behaviour (Bolton et al., 2004; Verhoef, 2003, Verhoef, 2002). However, visitor value of a relationship indicates user behaviour (Malthouse et al., 2013; Salo & Karjaluoto, 2007), and reflects the activeness and volume of use of online news or service

site of an individual, also recognised in prior literature on big data-based marketing (Brynjolfsson, 2013; Chen et al., 2005), analytics (Burby et al., 2007) and data mining (Chen & Popovich, 2003).

In the following, Table 2 presents a framework for customer relationship management in an online news channel based on the components of customer value and suggested online metrics.

DISCUSSION AND IMPLICATIONS

The managerial view of customer relationship management for an online news channel is one that nurtures a loyal customer base of subscribers, yet much of the results of this review are applicable to the management of any e-commerce context. Due to the digitalization of content, there exists a great opportunity for online news channels to strengthen customer relationships, yet the basic laws of building loyalty have not changed. An online news channel can operate as any e-commerce platform similar to Amazon.com and initiate a spiral of economic advantages by encouraging the value generating behaviour of customers. The increased loyalty of the customer base would make the business more profitable and enable media companies to compensate their employees more generously, provide investors with superior cash flows, and reinvest more

TABLE 2:
Framework for Managing Customer Value in Online News Channel Relationship

Concept of Customer Value	Components of Customer Value	Online User Metrics
Monetary Value	Life-time value	Purchases since the time of registration
	Transaction value	Economic value of the last purchase
Social Value	Referral value	Number of shared stories
	Knowledge value	Knowledge sharing comments,
	Influencer value	Size and nature of personal network
	Co-creation value	Number of comments, blogs
Visitor Value	Volume of use	Time on site, page impressions
	Frequency of use	Number of visits
	Recency of use	Time of last visit

aggressively in the customer relationships enhancing the value delivered to, and experience by, the customers

This research offers an answer to one of the most intriguing questions in the online business environment: "How would a company be able to retain and nurture online customer relationships for more profitable customer base?" Based on a literature review, focusing on the aspects of customer engagement value, the paper develops a framework for managing customer value in the online environment, especially in online news channels. The outcome is a holistic perspective on customer relationship value, recognising the economic and the relational value of online customers. Concrete tools and examples of online metrics are provided for managers to manage customer engagement value and loyalty of online customer relationships.

The theoretical contribution of the paper is threefold: first, the literature review shows that in online relationship management, traditional CRM and prior research on customer value management seem inadequate to recognize constantly evolving and multi-faceted value potential of online customers. According to prior research and the literature analysed in this paper, the management of customer engagement value seems to provide the most definitive view of customer relationship management in the online environment. The paper presents customer engagement value (CEV) as the desired outcome of online customer relationship management.

The second contribution is the holistic view of customer value and particularly the concept of the behavioural value of customers. Online user behaviour has been somewhat neglected in prior studies of customer value management, but in the context of online media, seems extremely relevant. Today, visitor value is easily measurable and as explained has an indisputable effect on the customer value of any online business and especially in the news industry. The user behaviour of an online customer directly affects the user volume of the site, and therefore, the value generated in the customer-media relationship. Examples of dimensions of online user behaviour that have an impact on customer value in online environment (but are not of social or monetary value) are presented in the form of frequency of visits, length of visit, time of visit and page impressions.

The third contribution is the demonstration of the six value-generating components of the online relationship, on which customer value management can be built upon. The components of online relationship value are organised into three separate concepts, and the creation of monetary, social and visitor value of online relationships is discussed according to prior academic research.

The managerial implications of the study are also threefold. First, the paper organises online customer management activities into three categories, all aimed at growth of the value in the relationships. To maximize the value of customers for a company, managers should pursue all aspects of customer engagement value: the monetary, social and visitor value of relationships.

Second, as the paper recognizes the full value potential of online customers, and explains the value creation mechanism of each value component in the relationship, it enables marketers to redirect marketing resources to measurable value-generating activities in the relationship. For example, if the customer base of an online news channel consists of high monetary value, (the majority of its customers are already paying for the content), but is limited in size and in terms of traffic (low visitor value of customers), marketing activities should focus on gaining higher user volume per customer, which would generate more inventory (page impressions) to be sold to the advertisers. Higher user volume would also be an initiative worth exploring for customer-company interactions and for customer-customer interactions. Frequency of visits, length of visit and number of page impressions generated by a customer usually indicate high or low interest towards the content of the site, and therefore, the potential or non-potential for paying for the service or content. Socially non-active customers, yet with high user volume, could be wheedled in to conversations and other engaging activities among customers in order to gain referral value, knowledge value and even influencer value in the relationship.

Third, the full value of online customer relationships can be measured according to the presented value components and the suggested variables. Measurement combines traditional CRM information on customer purchases with information on customer behaviour easily tracked using generic online customer level analytic tools. Therefore, the objectives for growing total customer value can be set and measured accordingly. The target of growing the total value of customer relationships should be established and the stakes set to realize the greatest potential of each relationship.

A simple fictional calculation case can further clarify the managerial implications of this research for determining customer relationship value in online news channel context. First we assume, that based on company CRM system customer A has bought an online subscription value of 10€ per month. The same customer A visits the site daily and on each visit browses the content further from the landing page, generating altogether 5000 impressions in one month. He /she also actively shares news links from the news site to his/her own social network in Facebook, generating through links new incoming traffic of 100 persons in one month. Thus, the absolute monetary value of customer A is 10€ in one month. The visitor value of this customer could be calculated based on advertising prices of display ad formats. One of the common display advertising formats is "Giant box" (468 x400px), which are sold based on the number of page views. If the list price for this ad format is 20€ per 1000 page views, customer A has generated absolute visitor value of 100€ ((5000 / 1000) x 20€). New incoming traffic is highly valuable for most of the companies operating online in terms of potential subscribers as well as in form of ad inventory. Customer A has brought in 100 new visitors through shared links. These persons have generated at least one page impression each by landing the news site. If calculated in the same manner the value of these visits are (100/1000 x 20€) 2€ in one month. By summing up the monetary, visitor and social value (10€ + 20€ + 2€) of customer A, he/she obtains customer relationship value for the company of net worth of 32€ in one month period.

In summary, customers clearly are valuable for the company from many different perspectives, and this potential should be fully exploited across industries operating in the online environment. As Hodis et al., (2015) state, for marketing professionals and scholars, the changing role of consumers from passive recipient to active contributor of brand related content (Prahalad & Ramaswamy, 2004) is a critical turning point where the marketing strategy for the socially connected consumer is shaped. In the news industry, where companies depend on large audiences and advertising revenue, customer engagement value is simply produced by activating the users of the site, by engaging them into conversations and commenting on content and by encouraging them to share and recommend the news in their own network. The three concepts of value presented here, monetary, social and visitor value, should help any online manager to organise the management of customer relationships in order to gain more value of each customer relationship in digital business environment.

Future Research and Limitations of the Study

This paper provides a promising basis for future research on customer value management research and the presented framework for analysing and managing customer engagement value has already been processed to another academic paper. The limitation of this study is the conceptual view of value management, and therefore, measuring the customer level value of relationships and determining the value structure of a firm's online customer base with real-life data have formed the natural next steps of this study. A future study on value-based segmentation as a basis for online management programs of each customer segment seemed like an interesting initiative to implement. The significant developments in data mining techniques (Mierzejewska & Shaver, 2014; Phelan, McCarthy, Bennett, & Smyth, 2011) and availability of relational data of online customers is easily accessible for any company operating online. Company specific customer data combined with audience data of news channels would offer an interesting avenue for customer relationship research in online environment.

The development of a sound and profitable customer retention strategy is important for all companies competing for loyal customers in the digital marketplace. The importance to link the customer relationship strategy to CRM technology is also evident (Krishnan, et al., 2014). Along with technical developments in marketing, such as dynamic CRM systems, segmentation and customer value management are major strategic weapons that can be used to assist in this endeavour. Customer engagement has become a fruitful new research area within customer management (Verhoef et al., 2010), which forms a natural umbrella for customer relationship value research and management.

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