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Examining the role of CSR skepticism using fuzzy-set qualitative comparative analysis

Dionysis Skarmeas, Athens University of Economics and Business

Constantinos N. Leonidou, Leeds University Business School, University of Leeds

Charalampos Saridakis, Leeds University Business School, University of Leeds

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Send correspondence to Dionysis Skarmeas, Athens University of Economics and Business, Department of Marketing and Communication, 12 Derigny Str., Athens 10434, Greece, phone: +30 (0) 210 8203 417, Fax: +30 (0) 210 8203 417, (dskarmeas@aueb.gr); Constantinos N. Leonidou, Leeds University Business School, University of Leeds, Maurice Keyworth Building Leeds LS2 9JT, United Kingdom, phone: +44 (0) 113 343 6855, Fax: +44 (0) 113 343 4885 (C.Leonidou@leeds.ac.uk); Charalampos Saridakis, Leeds University Business School, University of Leeds, Maurice Keyworth Building Leeds LS2 9JT, United Kingdom, phone: +44 (0) 113 343 1710, Fax: +44 (0) 113 343 4885 (b.saridakis@leeds.ac.uk).

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Examining the role of CSR skepticism using fuzzy-set qualitative comparative analysis

ABSTRACT

This study shows the value of a set-theoretic comparative technique—namely, fuzzy-set qualitative comparative analysis—as a means to supplement other traditional techniques, such as regression analysis and structural equation modeling. The study illustrates the technique by using the empirical data set in Skarmeas and Leonidou's (2013) study on consumer skepticism about corporate social responsibility (CSR). The investigation provides more nuanced coverage of the role of CSR skepticism than the conventional "net effect" symmetrical explanation and illustrates that CSR skepticism and its impact are contingent on combinations of complex antecedent conditions and several alternative paths. Specifically, the study expands on Skarmeas and Leonidou's findings by showing that the degree of CSR skepticism depends on the combination of "ingredients" in the CSR-induced consumer attribution causal "recipes." The study also shows that the deleterious influence of CSR skepticism on consumer-related outcomes, such as retailer equity, resilience to negative information about the retailer, and word of mouth, is conditional and depends on the combination of antecedent conditions that occur in the causal statements.

Keywords: CSR skepticism; attributions; fuzzy-set qualitative comparative analysis; multiple regression analysis; structural equation modeling

1. Introduction

Using structural equation modeling (SEM), Skarmeas and Leonidou (2013) (hereinafter SL) find that attributions of egoistic- and stakeholder-driven motives provoke consumer skepticism about corporate social responsibility (CSR) while values-driven attributions alleviate skepticism. Their results also provide support for the hypotheses that CSR skepticism results in lower levels of consumer-based retailer equity, decreased consumer resistance to negative information about the retailer, and unfavorable word of mouth (WOM).

The present study builds on the existing literature that underscores the value of fuzzy-set qualitative comparative analysis (fsQCA) (e.g., Fiss, 2011; Woodside, 2013; Woodside & Zhang, 2013) and shows that the proposed methodological tool offers much in terms of understanding causal relationships, by virtue of providing information that is unique in comparison with the information conventional correlational methods provide. In this regard, the study implements fsQCA with SL's data set and illustrates how this technique can supplement correlational techniques, by offering a more holistic, combinatorial view of the examined inter-relationships.

This study contributes to the literature in two ways. First, from a methodological perspective, the study demonstrates the value of complex combinatorial fsQCA and the advantages of this technique over traditional correlational methods; that is, fsQCA enables examination of different configurations of conditions that give rise to an outcome of interest (Ganter & Hecker, 2013; Stanko & Olleros, 2013). Second, from a theoretical perspective, the study builds and expands on the findings of SL by showing that alternative routes to CSR skepticism and its outcomes likely occur, in addition to those SL present. Overall, the aim is to estimate the alternative complex antecedent conditions (or causal recipes) that lead to high membership in four

outcome conditions: (1) CSR consumer skepticism, (2) retailer equity, (3) resilience to negative information about the retailer, and (4) WOM. The value of this study lies in the effort to describe combinatorial complexities assuming asymmetrical relationships between variables, rather than symmetrical net effects that multiple regression analysis (MRA) and SEM usually estimate.

Section 2 summarizes the theoretical background of the study and provides key insights into the work of SL. Section 3 outlines the limitations of correlational methods, such as MRA and SEM, and highlights the need for new alternative techniques. Section 4 presents fsQCA, and section 5 implements the proposed mechanism to SL's data set and reports the relevant empirical results. Section 6 discusses the contribution of this study to SL's findings. Section 7 concludes with important implications and suggestions for further research.

2. SL's study of CSR skepticism

Skepticism generally reflects doubt about the truth of something. Many disciplines discuss skepticism, including politics (e.g., Taber & Lodge, 2006), philosophy (e.g., McGrath, 2011), sociology (e.g., Freudenburg, Gramling, & Davidson, 2008), and psychology (e.g., Lilienfeld, 2012). Research in business examines skepticism in the areas of advertising, promotion, and public relations (e.g., Boush, Friestad, & Rose, 1994; Obermiller, Spangenberg, & MacLachlan, 2005); corporate social marketing (Forehand & Grier, 2003); environmental claims (Mohr, Eroglu, & Ellen, 1998); cause-related claims (Singh, Kristensen, & Villasenor, 2009); CSR communication during crises (Vanhamme & Grobben, 2009); and CSR programs (Pirsch, Gupta, & Grau, 2007).

CSR is a widely debated topic in both academic and management circles. While increasingly more companies undertake CSR initiatives in an attempt to contribute to society or pursue their strategic goals, examples of corporate social irresponsibility abound (e.g., Carson, 2003; Lange & Washburn, 2012; Murphy & Schlegelmilch, 2013). Corporate wrongdoing attracts the attention of the media and watchdog organizations, triggering questions about why companies engage in CSR and how they contribute to social well-being (Bielak, Bonini, & Oppenheim, 2007; Wagner, Lutz, & Weitz, 2009). As a result, many people express doubts about the extent to which companies live up to their professed standards, and growing skepticism emerges about corporate social involvement.

However, despite general societal importance and extensive managerial interest, examination of the antecedents and consequences of consumer skepticism about CSR remains a neglected area of research. In an attempt to fill this gap, SL draw on attribution theory and develop a conceptual model that explains both how consumer skepticism about CSR develops and its effects on consumer-related outcomes in the context of grocery retailers. Fig. 1 depicts their proposed conceptual model and hypothesized relationships. The conceptual model posits that CSR-induced consumer attributions, such as egoistic-, values-, strategic-, and stakeholder-driven motives, influence the development of consumer skepticism about CSR, which in turn reduces consumer-based retailer equity, consumer resilience to negative information, and WOM. The data came from a sample of 504 respondents. SL adapted the items used to operationalize the model constructs from prior research, with appropriate modifications to make them relevant to the study context; all cases used a 7-point response format. More detailed explanations of the constructs, hypothesized

relationships, data, and measures are available in the work of SL. To avoid redundancy, the present research does not elaborate more on these issues.

Figure 1 here.

SL employ SEM to test the research hypotheses and find that egoistic- and stakeholder-driven attributions fuel consumer skepticism about CSR while values-driven motives and customer orientation deter its development. The results regarding strategic-driven attributions show that they neither facilitate nor inhibit CSR skepticism, which suggests that consumers tend to be neutral toward strategic motives for corporate social engagement. Regarding the outcomes of CSR skepticism, the findings reveal that CSR skepticism results in lower levels of consumer-based retailer equity, weak consumer resistance to negative information about the retailer, and negative WOM. Finally, the results indicate that retailer equity builds resilience to negative information and prompts favorable WOM. Table 1 summarizes SL's findings.

Table 1 here.

Using fsQCA, this study attempts to re-analyze the relationships SL propose and to show how this technique can provide a more nuanced understanding of the role of CSR skepticism. The aim is to illustrate the advantage of this method to describe combinatorial complexities assuming asymmetrical relationships between variables, rather than symmetrical net effects usually estimated with MRA and SEM. SEM is a

regression-based technique, and therefore all concerns raised with MRA also apply to SEM.

3. Limitations of MRA and SEM: The need for alternative techniques

3.1. Focus on the "net effect" estimation

Multiple regression equations follow a net effects estimation approach (i.e., estimation of the effect size of each independent variable on the dependent variable, after controlling for the impact of the other independent variables also included in the equation). However, multicollinearity (i.e., significant correlations among the independent variables) is common, especially in cases with a large number of independent variables (e.g., Mittal, Ross, & Baldasare, 1998; Wittink & Bayer, 1994). If multicollinearity is high, the regression estimator becomes inefficient and may yield statistically non-significant estimates or estimates inconsistent with the supposed associations (e.g., Van der Meer, Quigley, & Storbeck, 2005). Even in cases of low multicollinearity, the estimated net effects of the independent variables may change from significant to non-significant depending on the additional independent variables that enter the equation (Woodside, 2013). Armstrong (2012) posits that researchers who use regression analysis falsely assume that by entering variables into the equation, they somehow control for these variables. However, adding variables in non-experimental studies does not mean controlling for them because predictors usually co-vary with each other.

The preceding discussion implies that hypothesis testing that merely relies on net effects estimation may be misleading in some cases. In addition, net effects do not reflect all aspects of reality because, in any given data set, not all cases support an exclusive negative or positive relationship between the independent and dependent

variables (Woodside, 2013). Therefore, rather than estimating regression models, which merely prove the existence of a statistically significant, monotonically increasing or decreasing relationship between two variables, the researcher can provide a more nuanced coverage of reality by illustrating combinatory conditions under which both a positive and a negative relationship between the two variables can occur. This study suggests that the examination of the effect of collective combinations of antecedent conditions on an outcome condition is more informative than a net effects approach.

3.2. Assumption of symmetric relationships

MRA examines whether the relationships between a group of independent variables and a dependent variable are symmetric or not. A symmetric relationship assumes that low (high) values of an independent variable always corresponds to low (high) values of a dependent variable and that low (high) values of an independent variable are both necessary and sufficient conditions for low (high) values of a dependent variable to occur. In contrast, an asymmetric relationship indicates that high values of an independent variable, in some cases, are sufficient but not necessary conditions for high values of a dependent variable to occur because high values of the dependent variable may also occur when values of the independent variable are low (Ragin, 2008; Woodside, 2013). In other words, reality includes more than one combination of causal conditions that lead to the same outcome.

Research suggests that a correlation coefficient with a value higher than 0.80 indicates a symmetric relationship while a correlation coefficient with a value between 0.30 and 0.70 indicates an asymmetric relationship (Woodside, 2013). In reality, correlation coefficients between variables are usually lower than 0.70—an

indication that most observed relationships between variables are asymmetric and different combinations of independent variables can lead to the same outcome.

3.3. Assumption of linearity

MRA also assumes that relationships between independent and dependent variables are linear. Many authors, however, stress that, pragmatically, most observable relationships are not 100% linear and, thus, that correlation coefficients cannot accurately describe them (Armstrong, 2012; Woodside, 2013). For example, Woodside (2013) stresses that relationships are rarely linear and are better explained by "tipping points." In other words, a change in an independent variable may have little or no impact on a dependent variable, until this change reaches a certain threshold (Gladwell, 2000).

4. Overview of the fsQCA technique

4.1. Basic fuzzy-set principles and data calibration

Fuzzy sets are relatively new to social science, with their first introduction in 1987 by Smithson though applications were few until the integration of the basic fuzzy-set principles with qualitative comparative analysis (Ragin, 1987, 2000). The combination of these two concepts produced fsQCA, a family of methods that provides researchers an alternative to conventional, correlational reasoning methods.

The majority of fsQCA applications are in political science and sociology. Representative contributions from various sub-fields include policy analysis (e.g., Blake & Adolino, 2001), political parties (e.g., Gordin, 2001), social and political change (e.g., Berg-Schlosser & De Meur, 1994), social movements (e.g., Nomiya, 2001), welfare states (e.g., Peillon, 1996), law and criminology (e.g., Tarohmaru, 2001), linguistics (e.g., Mendel & Korjani, 2012), psychology (e.g., Theuns, 1994), and addictive behavior (e.g., Eng & Woodside, 2012). Applications of the technique

in business and management are fewer, though representative examples are available in areas such as international business (e.g., Pajunen, 2008; Schneider, Schulze-Bentrop, & Paunescu, 2010), innovation (e.g., Cheng, Chang, & Li, 2013; Ganter & Hecker, 2013; Stanko & Olleros, 2013), organizational behavior and strategic management (e.g., Fiss, 2011; Greckhamer, Misangyi, Elms, & Lacey, 2008; Stokke, 2007), inter-organizational alliances (e.g., Leischnig, Geigenmueller, & Lohmann, 2013), tourism management (e.g., Woodside, Hsu, & Marshall, 2011), socially responsible practices (e.g., Crilly, Zollo, & Hansen, 2012), and labor relations (e.g., Coverdill, Finlay, & Martin, 1994).

Ragin (2000) was the first to introduce fsQCA; this technique differs from regression-based methods and other conventional statistical techniques in important ways (Mahoney & Goertz, 2006; Pajunen, 2008). For example, in contrast with correlational techniques, which attempt to estimate the net effect of an independent variable on an outcome variable, fsQCA attempts to identify the conditions that lead to a given outcome (Schneider et al., 2010). As such, fsQCA is a proficient tool that helps supplement traditional correlational analyses in three main ways: (1) asymmetry (i.e., the relationships between independent and dependent variables are treated as not symmetric), (2) equifinality (i.e., multiple pathways and solutions lead to the same outcome), and (3) causal complexity (i.e., combinations of causal antecedent conditions lead to the outcome, and thus the researcher focuses not on the estimation of independent net effects but on the estimation of combinatorial effects) (Elliott, 2013).

In general, fsQCA is an analysis of set relationships. A set can be a group of elements or, in the case of fsQCA, a group of values. The main aim of the technique is to identify all necessary and sufficient conditions that lead to a specific outcome

condition (Ragin, 1999). Necessary conditions are those that produce the outcome. All cases (e.g., individuals) that display the outcome also display the necessary condition; however, necessary conditions by themselves are not always enough to produce the outcome. Sufficient conditions are those that always lead to the given outcome; however, they may not be the only conditions that lead to this outcome, because several alternative sufficient conditions may co-exist. In set notation, the outcome set is a subset of the necessary condition set, and this sufficient condition set is a subset of the outcome set (Ragin, 2008).

In the first stage, before the implementation of this technique, the researcher must convert all variables into sets. This process is called "data calibration." Sets are not variables in the usual sense; rather, a set is a group of values that represent the degree of membership in a specific category (e.g., "loyal customer") or the degree of membership in a specific condition (Woodside & Zhang, 2013). The researcher can transform variables into either crisp or fuzzy sets. If membership in a specific category is binary (i.e., the cases are either members or non-members in this category), the respective set is called "crisp set" (Ragin, 2008); therefore, crisp sets record a value of 1 for cases with membership in the given category (or simple condition) and 0 for non-membership. Alternatively, fuzzy sets allow for varying degrees of membership in categories, and so the cases can take any value from the continuous range of 0 to 1. The value of 1 signifies full membership of a case in a specific category, the value of 0 denotes complete non-membership in the given category, and the value of 0.5 indicates neither membership nor non-membership in the category (i.e., the point of maximum ambiguity) (Fiss, 2011; Woodside, 2013). For example, a fuzzy-set score of 0.75 means that the respective case (e.g., individual, organization) is mostly a member of the respective category.

Set membership scores that result from calibrating original variable scores into fuzzy-set scores are not probabilities but rather transformations of ordinal or interval scales into degrees of membership in the target set. Therefore, specific criteria must be set for three breakpoints in fuzzy-set calibration. The breakpoints include 0.05 for the threshold of full non-membership, 0.50 for the crossover point of maximum membership ambiguity, and 0.95 for the threshold of full membership. The researcher must determine these three breakpoints to be able to calibrate all original values into membership fuzzy-set values (Ragin, 2008).

4.2. Estimating negated sets

In fsQCA, the researcher is also interested in estimating negated sets, which represent the absence of a given condition (Woodside & Zhang, 2013). If a set is denoted by A, the respective negated set is usually denoted by ~A. The researcher can calculate the membership of a case in a negated set by taking 1 minus the membership score of the given case in the original fuzzy set. So, for example, if a case has a membership score in the calibrated fuzzy set A of 0.75, the same case would have a membership score in the negated set ~A of $1 - 0.75 = 0.25$.

4.3. Estimating complex causal statements (recipes)

In fsQCA, researchers aim to estimate complex causal statements (i.e., combinations of simple antecedent conditions), which lead to specific outcome conditions (Schneider et al., 2010). A case's membership score in a complex causal statement is the degree of membership in the intersection of the fuzzy-set simple causal conditions that comprise the recipe (Woodside & Zhang, 2013). For example, assume that for each case the researcher has estimated four calibrated fuzzy sets, namely, A, B, C, and D, that represent the case's membership in any of the four simple conditions. Consider the complex causal recipe A*B*C*D. The asterisk

represents the logical "and" in fuzzy-sets terminology, and this intersection value equals the minimum score among the four simple conditions in this causal recipe. So, if, for example, the scores in parentheses are the fuzzy-set calibrated scores for the four antecedents of the first case in the data set—A (0.75), B (0.61), C (0.32), and D (0.29)—the case's score for the complex condition of A*B*C*D will equal 0.29. This score represents the degree of membership of that case in the complex condition represented by the combination of these four simple conditions.

4.4. Assessing the derived solutions

Use of the fsQCA technique enables the researcher to test for fuzzy-set membership in an outcome condition for all possible combinations of the antecedent factors. The output of this analysis provides three types of solutions: complex, parsimonious, and intermediate. Each of these solutions derives a set of pathways (i.e., statements of complex causal conditions) that are predictive of a high membership score in the outcome condition (Ragin, 2008).

A complex solution makes no simplifying assumptions. As a result, if the researcher considers a large number of causal antecedent conditions, the derived solution will be fairly complicated. The parsimonious solution uses the remainders (i.e., combinations of the antecedent conditions not observed in the data set) to simplify the solution. With such a strong assumption, the parsimonious solution should only be used if the assumptions are fully justified. Finally, the intermediate solution distinguishes between "easy" and "strong" assumptions and takes into consideration only the "easy" remainders when simplifying the solution. Thus, the complex solution, which makes no assumptions, is the most appropriate; prior research highly recommends this solution especially when the number of causal antecedent conditions is not large (Elliott, 2013; Ragin & Sonnett, 2005).

In fsQCA, the derived solutions as a whole and each solution term (i.e., pathway) are usually assessed on the basis of two measures—namely, consistency and coverage. Consistency represents the extent to which a causal combination leads to an outcome and ranges from 0 to 1. In other words, consistency measures the degree to which solution terms and the general solution are subsets of the outcome (Ragin, 2008). Consistency therefore tests for sufficiency but not for sufficiency and necessity (Woodside, 2013). After calculating consistency scores for all possible complex causal combinations that can lead to a specific outcome condition, the researcher must decide which of all possible combinations (pathways) to include in the final solution. The researcher selects a cutoff consistency value (which usually equals 0.80 or more) and retains all combinations that have high enough consistency scores in the final solution. Combinations with high consistency scores indicate pathways that almost always lead to the given outcome condition (Elliott, 2013).

After the researcher chooses the combinations with high consistency to include in the final solution, he or she can calculate a second statistic—namely, coverage. Coverage indicates how many cases in the data set that have high membership in the outcome condition are represented by a particular causal complex condition. In other words, coverage reflects how much of the outcome is covered (explained) by each solution term (pathway) and by the solution as a whole (Ragin, 2008).

The measure of consistency is analogous to a correlation coefficient, and the measure of coverage is analogous to the coefficient of determination (i.e., r^2) (Woodside, 2013). The higher the consistency cutoff point the researcher sets for selecting the best combinations, the higher the final consistency will be, but the lower the respective coverage (Elliott, 2013; Ragin, 2006). Research (e.g., Ragin, 2008;

Woodside, 2013) suggests that a model (solution) is informative when consistency is above 0.74 and coverage is between 0.25 and 0.65.

4.5. Limitations of fsQCA

The fsQCA has several advantages as an analytical tool (e.g., enables examination of multiple combinatorial causations directly and identification of the best configurations of multiple causes) but also carries limitations in comparison with MRA. For example, one important advantage of MRA over fsQCA is that the former allows for the estimation of a variable's average effect, which is particularly important when the researcher wants to estimate the size of the net effect of each independent variable on the dependent variable. With the measures of consistency and coverage, fsQCA assesses the empirical relevance and set-theoretical importance of complex combinatorial paths to the outcome but cannot conclude on the unique contribution of each individual simple condition. Furthermore, MRA is less demanding regarding prior causal knowledge and therefore is less affected by the researcher's prior knowledge, has a clear empiricist foundation, and does not require the calibration of data (Vis, 2012).

5. Implementing fsQCA algorithms to SL's data

5.1. Justifying the need for fsQCA

SL use SEM to estimate the net effects of a set of CSR-induced consumer attribution antecedents on consumer skepticism about CSR, as well as the net effect of CSR skepticism on three consumer-related outcomes, in the context of grocery retailers. Table 2 illustrates the means, standard deviations, and intercorrelations of the constructs SL investigate in their study. As the table shows, none of the estimated correlation coefficients has an absolute value higher than 0.60. This finding implies that the respective relationships between variables are generally asymmetric, and thus

alternative combinations of causal conditions can lead to the same outcome condition (Woodside, 2013).

Table 2 here.

In light of this set of results, the present study reexamines the role of CSR skepticism using fsQCA to obtain a more holistic and accurate picture of its antecedents and consequences. In fsQCA terminology, the aim is to estimate the alternative complex antecedent conditions (or causal recipes) that lead to high membership in the four outcome conditions: (1) CSR skepticism, (2) retailer equity, (3) resilience to negative information, and (4) WOM. The value of this study lies in its efforts to describe combinatorial complexities assuming asymmetric relationships rather than symmetrical net effects.

5.2. Calibration of the data set

The sample consists of 504 respondent cases in total. Table 3 contains relevant data for an illustrative random group of 36 cases (i.e., individuals) in the data set. The table shows both the original variables SL use and the respective calibrated fuzzy sets. The first nine columns of the data set include “ego” for egoistic-driven motives, “val” for values-driven motives, “str” for strategic-driven motives, “stak” for stakeholder-driven motives, “skept” for CSR skepticism, “co” for customer orientation, “equit” for equity, “rninfo” for resilience to negative information, and “wom” for word of mouth. The last nine columns starting with “f_” illustrate the respective calibrated fuzzy sets.

Table 3 here.

5.3. Results

The derived complex solutions that illustrate the alternative causal recipes (i.e., sufficient conditions) that lead to high membership in each of the four outcome conditions appear in Table 4. The study focuses on the presentation of the derived complex solutions because, contrary to the parsimonious and intermediate solutions, this type of solution makes no simplifying assumptions (Elliott, 2013; Ragin & Sonnett, 2005). In addition, after consistency scores for all possible complex causal combinations that lead to each of the four outcome conditions are calculated, the usual cutoff consistency score of 0.80 is assigned. The final solution retains the combinations that had consistency scores higher than this threshold.

Table 4 here.

Table 4 shows that all four models (solutions) are informative because all consistency values are higher than 0.74 and all coverage values range between 0.25 and 0.65, as previous research suggests (e.g., Ragin, 2008; Woodside, 2013). The subsequent sub-sections analyze the derived complex causal statements (i.e., pathways) for each of the four solutions.

5.3.1. Complex causal statements for high membership in the CSR skepticism outcome condition

According to the complex solution derived for the first outcome condition, two pathways lead to high CSR skepticism. The first indicates that high egoistic-driven motives, with low values-driven motives, low stakeholder-driven motives, and low customer orientation, lead to high membership scores for CSR skepticism. This pathway is fairly consistent (consistency = 0.91) and explains a satisfactory amount of

cases with high CSR skepticism (coverage = 0.41). The second pathway indicates that high egoistic-driven motives, with low values-driven motives, high strategic-driven motives, and low customer orientation, also result in high CSR skepticism. This pathway is more consistent than the previous one (consistency = 0.92) and explains the most cases of high CSR skepticism (coverage = 0.45). The solution as a whole has a high consistency of 0.91 and a satisfactory coverage of 0.51.

The main conclusion from the first solution is that three simple antecedent conditions—namely, high egoistic-driven motives, low values-driven motives, and low customer orientation—appear in both pathways and lead to high CSR skepticism. Thus, these three simple antecedent conditions are necessary (though not sufficient) for high CSR skepticism.

5.3.2. Complex causal statements for high membership in the retailer's equity outcome condition

The derived solution for the antecedent conditions that lead to high retailer equity indicates one pathway. This pathway suggests that high customer orientation with low CSR skepticism results in high retailer equity. The solution is fairly consistent at 0.85 and has a high coverage of 0.58. Thus, these two simple antecedent conditions are necessary and their combination is sufficient for high retailer equity.

5.3.3. Complex causal statements for high membership in the resilience to negative information outcome condition

The model examining the complex antecedent conditions related to high membership scores in the outcome condition of resilience to negative information derives three pathways. The first indicates that high customer orientation, with low CSR skepticism and low retailer equity, results in high resilience to negative information (consistency = 0.83; coverage = 0.31). The second pathway indicates that

low customer orientation, with low CSR skepticism and high retailer equity, results in high resilience to negative information (consistency = 0.82; coverage = 0.38). Finally, the third pathway indicates that high customer orientation, with high CSR skepticism and high retailer equity, results in high resilience to negative information (consistency = 0.81, coverage = 0.32). The solution as a whole has an acceptable consistency of 0.78 and a satisfactory coverage of 0.56.

Several conclusions arise from these results. Low CSR skepticism appears in combination with other antecedent conditions in two of the derived recipes. However, low CSR skepticism does not appear in all three derived recipes, implying that the absence of CSR skepticism is not a necessary condition for high resilience to negative information. An additional complex antecedent condition related to high resilience to negative information occurs in the presence of high CSR skepticism.

Similarly, retailer equity appears in combination with other antecedent conditions in two of the derived recipes. However, high retailer equity does not appear in one of the derived recipes, suggesting that its presence is not a necessary condition for high resilience to negative information. Note that the usually positive, but in one case negative, impact of retailer equity on resilience to negative information depends on the combination of additional antecedent conditions that occur in specific complex causal recipes.

5.3.4. Complex causal statements for high membership in the WOM outcome condition

Finally, the last model regarding the antecedent complex conditions that lead to WOM derives two pathways. The first indicates that low retailer equity, with high customer orientation and low CSR skepticism, results in positive WOM (consistency = 0.86; coverage = 0.32), while the second pathway indicates that high retailer equity,

with high customer orientation and high CSR skepticism, also leads to positive WOM. The second pathway is more consistent than the first and explains the most cases of high WOM (consistency = 0.89; coverage = 0.34). Overall, the solution has a high consistency of 0.85 and a satisfactory coverage of 0.45.

The results indicate that high customer orientation, which appear in all pathways, is the only simple antecedent condition that is necessary (though not sufficient) for WOM. Note that the expected negative impact of CSR skepticism on WOM depends on the combination of additional antecedent conditions that occur in specific complex causal recipes. The same conclusion arises for the expected positive impact of retailer equity on WOM, which also depends on the combination of additional antecedent conditions.

6. Discussion and contributions to SL's findings

This study attempts to illustrate the advantages of complex combinatorial fsQCA over conventional correlational methods, such as MRA and SEM, which mainly focus on the estimation of net effects. However, this study also goes beyond the methodological contribution and provides new insights into SL's findings. Rather than focusing on the estimation of main effects, the present study examines how complex antecedent combinations of CSR-induced consumer attributions can collectively affect consumer skepticism about CSR. Similarly, this research endeavor also elaborates on the outcomes of CSR skepticism, by analyzing the integrated impact of complex causal recipes on consumer-related outcome conditions, such as retailer equity, resilience to negative information, and WOM.

Table 5 illustrates how this study builds and expands on the findings of SL. More specifically, Table 5 shows the derived results for the recipes that lead to high membership scores in the four outcome conditions and compares the conclusions with

those of SL. The notation used in Table 5 is consistent with the notation Ragin and Fiss (2008) and Fiss (2011) use. The black circles indicate very high presence of a condition, and the white circles indicate very low presence (i.e., absence) of a condition. Large black (white) circles indicate a core, necessary condition of presence (absence), and "Ø" indicates a peripheral (not necessary) condition. Blank spaces in a pathway indicate a "don't care" situation, in which the causal condition may be either present or absent. The table also compares the conclusions of this study with the research findings of SL. "√" indicates that the respective hypothesis or link presented in SL's study is supported by the present fsQCA analysis, "¢" indicates a hypothesis or link that is conditionally supported by the present analysis, and "×" indicates a hypothesis or link that is not supported by the present analysis.

Table 5 here.

As Table 5 shows, in line with the findings of SL, the findings of this study reveal that high presence of egoistic-driven attribution, absent values-driven motives (and customer orientation), are necessary (though not sufficient) conditions for the development of consumer skepticism about CSR. These findings provide evidence in support for SL's H1 and H2 on the positive and negative relationship of egoistic- and values-driven motives, respectively, to CSR skepticism. However, the present study further suggests that high CSR skepticism requires that both these two prerequisite conditions are simultaneously satisfied.

Furthermore, the findings of this study indicate that high presence of strategic-driven motives may facilitate CSR skepticism under certain conditions. Strategic-driven motives appear in combination with other antecedent conditions in one of the

two recipes for high CSR skepticism. However, strategic-driven motives do not appear in both derived recipes. Therefore, the presence of strategic driven-motives is not necessary for high CSR skepticism. Other complex antecedent conditions, which lead to CSR skepticism, can and do occur without the presence of strategic driven-motives. These findings provide conditional support for H3 (SL's results indicate a non-significant link) on the positive relationship between strategic-driven motives and CSR skepticism.

The derived results for stakeholder-driven motives show that their presence does not facilitate CSR skepticism, for which the negative of this variable (i.e., ~stak) occurs for one of the two paths. This finding provides evidence in contrast with H4 on the positive relationship between stakeholder-driven motives and CSR skepticism. The present study indicates that the presence of stakeholder-driven motives is neither a necessary nor a sufficient condition for high CSR skepticism. In addition, the absence of this type of motivation may facilitate the development of CSR skepticism under certain conditions. This finding indicates that consumers are not negatively pre-disposed toward corporate social engagement driven by stakeholder-related motivation.

Regarding the consequences of CSR skepticism, in line with the results of SL, the present analysis suggests that absence of CSR skepticism is a necessary condition for high retailer equity. Evidence shows strong support for H5 on the negative relationship between CSR skepticism and retailer equity. However, this study further suggests that absence of CSR skepticism is not a sufficient condition on its own for high retailer equity. A retailer will achieve high levels of equity only if the absence of CSR skepticism is accompanied by high presence of customer orientation.

The present study also reveals that the deleterious influence of CSR skepticism on consumer resistance to negative information and WOM is conditional and depends on the combination of additional antecedent conditions that occur in specific causal recipes. More specifically, the presence of CSR skepticism may lead to resilience to negative information and WOM under certain conditions—for example, when the retailer has both high equity and high customer orientation at the same time. However, if CSR skepticism is absent, either retailer equity or customer orientation (not both) must be present to facilitate high resilience to negative information. Similarly, if CSR skepticism is absent, only high customer orientation is necessary for high positive WOM. These findings provide conditional support for H6 and H7 on the negative association of CSR skepticism with resilience to negative information and WOM, respectively.

Finally, the present analysis indicates that the positive influence of retailer equity on consumer resistance to negative information and WOM is conditional and depends on the combination of additional antecedent conditions that occur in specific causal recipes. More specifically, the absence of retailer equity may lead to resilience to negative information and WOM under certain conditions—for example, when the retailer has high customer orientation and, at the same time, the consumer has low levels of skepticism about CSR. However, if the retailer has high equity, both CSR skepticism and customer orientation can be either present or absent to facilitate high resilience to negative information. Likewise, if the retailer has high equity, both CSR skepticism and customer orientation must be present for high positive WOM to occur. These findings provide conditional support for H8 and H9 on the positive association of retailer equity with resilience to negative information and WOM, respectively.

7. Study implications

From a theoretical perspective, this study broadens and deepens scientific understanding of the antecedents and outcomes of CSR skepticism. Use of fsQCA enables the identification of several causal paths comprising specific combinations of factors that influence CSR skepticism and helps determine the appropriate configurations needed for the emergence of resilience to negative information, retailer equity, and WOM. The findings show that some individual attributions (i.e., egoistic- and values-driven) are necessary but not solely sufficient to achieve or deter CSR skepticism. Instead, multiple combinations of attributions lead consumers to develop skepticism about a retailer's social responsibility credentials.

Similarly, the study shows that CSR skepticism has important deleterious effects for resilience to negative information, retailer equity, and WOM. However, under certain circumstances, the detrimental impact of CSR skepticism on resilience to negative information and WOM can be alleviated with the soothing presence of customer orientation and retailer equity. The demonstrated complex substitutive and complementary relationships between these factors constitute an important contribution for attribution theory and a significant development in the CSR literature.

From a methodological perspective, this study demonstrates the usefulness of fsQCA in identifying paths, involving different combinations of conditions, to achieve a specific outcome (Cheng et al., 2013). The study helps tease out the complementarities and substitutions in different configurations of factors and allows a more nuanced analysis than conventional quantitative, correlational techniques (Crilly et al., 2012; Fiss, 2011). This study is one of the first studies to employ this type of analysis to explore social responsibility phenomena (for exceptions, see Crilly, 2013; Crilly et al., 2012). Accordingly, this analysis shows that fsQCA is a valuable analytical tool that researchers can use in conjunction with other analytical techniques

(e.g., SEM, MRA) with a view to developing better explanations on how causes combine to create an outcome (Ragin, 2008; Stanko & Olleros, 2013). Thus, fsQCA is a powerful, new, and proper analytical tool that can help in further advancing knowledge in the CSR domain.

From a managerial perspective, the findings produce several implications. First, CSR skepticism seems to emerge in the presence of egoistic-driven attributions, absence of values-driven motives, and lack of customer orientation. Therefore, managers should consider concentrating efforts on understanding their customers, closely monitoring their perceptions about the company, and devoting attention to accommodating their individual requirements (Eisingerich, Rubera, Seifert, & Bhardwaj, 2011). In this way, companies might be in a better position to manage CSR skepticism, understand how customers' perceive different socially responsible actions, and appropriately take action when the need arises. Second, the absence of CSR skepticism and the presence of customer orientation can help retailers build equity. Therefore, managers should keep skepticism levels as low as possible to allow customers to understand the value proposition offered.

Third, the findings highlight the significance of retailer equity and customer orientation, which, in the absence of CSR skepticism, give rise to resilience to negative information and favorable WOM. However, the study also uncovers the complementary role of equity and customer orientation in helping firms alleviate the negative consequences of CSR skepticism. Thus, managers wishing to minimize the deleterious effects of CSR skepticism should invest sufficient resources in developing a firm understanding about and building strong favorable associations with their customers. These two key attributes can potentially shield companies when doubts emerge about their CSR practices.

The study also has some implications for researchers. First, research might extend the present framework by examining the direct effects of complex combinatorial CSR-induced consumer attribution recipes on retailer equity, resilience to negative information, and WOM. The examination of these relationships is beyond the scope of this study, which mainly focuses on the re-analysis of SL's research model and the illustration of the value of fsQCA. Second, algorithms, as the one presented here, have much to offer in understanding causal relationships and research hypotheses formulation.

Research could also test the applicability of other algorithms that have appeared in the literature but have not been used for hypothesis testing purposes (e.g., genetic algorithms and particle swarm optimization). The comparison of these combinatorial techniques with conventional ones could open new avenues for data analysis. Finally, adopting a longitudinal study design would allow for investigation of different configurations of causal paths related to the drivers and outcomes of CSR skepticism by excluding alternative temporal orderings of the model constructs. The goals of this study are to spark further research using fsQCA approaches in the business domain and to stimulate further work in this emerging and exciting field.

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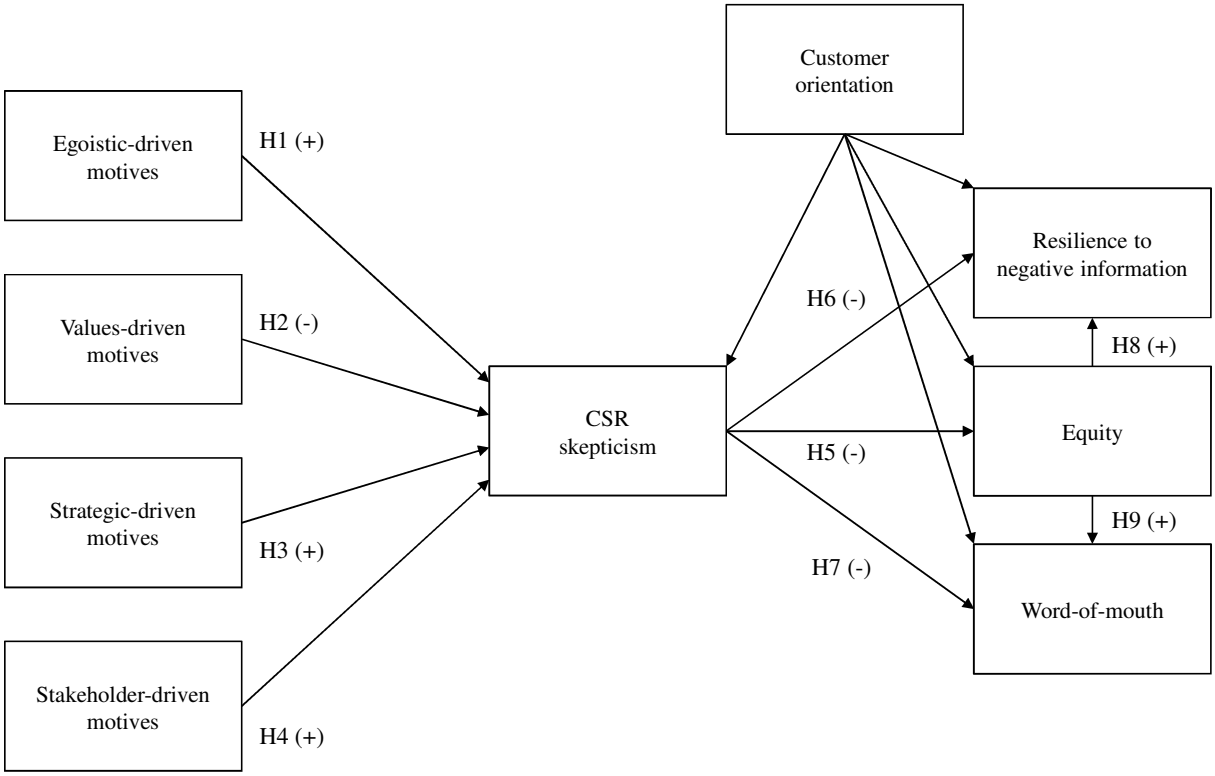

Source: SL (2013)

Fig. 1. Research model and hypothesized effects of SL.

Table 1

SEM results of SL.

Hypotheses	Standardized loading	*t*-value
Egoistic-driven motives → CSR skepticism	.26	5.03**
Values-driven motives → CSR skepticism	-.43	-7.81**
Strategic-driven motives → CSR skepticism	-.06	-1.21
Stakeholder-driven motives → CSR skepticism	.13	2.80**
CSR skepticism → equity	-.41	-7.72**
CSR skepticism → resilience to negative information	-.27	-4.49**
CSR skepticism → WOM	-.20	-3.56**
Equity → resilience to negative information	.19	3.49**
Equity → WOM	.30	5.58**
Customer orientation → CSR skepticism	-.25	-5.32**
Customer orientation → equity	.19	3.60**
Customer orientation → resilience to negative information	.15	2.65**
Customer orientation → WOM	.13	2.44*

**$p < .01$.
*$p < .05$.
Source: SL (2013).

Table 2

Correlation matrix, reliability estimates, and descriptive statistics [a]

Measures	1	2	3	4	5	6	7	8	9
1. Egoistic-driven motives	1.00								
2. Values-driven motives	-.27	1.00							
3. Strategic-driven motives	.41	-.19	1.00						
4. Stakeholder-driven motives	.09	.28	.23	1.00					
5. CSR skepticism	.40	-.53	.21	.01	1.00				
6. Equity	-.11	-.26	-.03	.02	-.47	1.00			
7. Resilience to negative information	-.18	-.23	-.01	.08	-.39	.34	1.00		
8. WOM	-.12	.24	-.01	-.02	-.39	.40	.24	1.00	
9. Customer orientation	-.25	.46	-.12	.03	-.47	.37	.32	.34	1.00
α	.82	.91	.85	.87	.92	.91	.86	.90	.89
Mean	4.77	4.13	5.47	3.91	3.26	3.93	4.11	4.58	4.05
Standard deviation	1.22	1.46	1.12	1.37	1.54	1.03	1.24	1.28	1.24

[a] Correlations ≥ .09 are significant at the .05 level; correlations ≥ .11 are significant at the .01 level.
Source: SL (2013).

Table 3

Illustrative data for a randomly chosen group of 36 cases

Case	ego	val	str	stak	skept	co	equit	rninfo	wom	f_ego	f_val	f_str	f_stak	f_skept	f_co	f_equit	f_rninfo	f_wom
1	4.6666667	2.5	4.75	4.25	4.5	3.25	2.6666667	4.3333333	1.3333333	0.39	0.13	0.21	0.59	0.8	0.21	0.12	0.61	0.02
2	4	5	4.75	4	2	5	3	4.3333333	5.6666667	0.22	0.75	0.21	0.5	0.16	0.78	0.18	0.61	0.88
3	4.6666667	3.75	4.5	3.75	3	4.5	3	4.6666667	6	0.39	0.37	0.16	0.43	0.42	0.61	0.18	0.7	0.95
4	6.6666667	3.5	4.5	6.25	2	4.25	5	2.3333333	6	0.95	0.31	0.16	0.97	0.16	0.5	0.95	0.05	0.95
5	5.3333333	5	6.25	5.25	2.25	5.25	4.3333333	5.6666667	6	0.65	0.75	0.77	0.87	0.21	0.85	0.73	0.9	0.95
6	5.3333333	5.25	4.75	4.25	2.25	4.75	4	4.6666667	5.3333333	0.65	0.82	0.21	0.59	0.21	0.7	0.5	0.7	0.73
7	4.3333333	5	5	2.5	2	5.25	4.3333333	6	3.6666667	0.3	0.75	0.27	0.16	0.16	0.85	0.73	0.93	0.18
8	2	6	2	4	3	5.75	5	5.3333333	6	0.02	0.93	0.01	0.5	0.42	0.93	0.95	0.85	0.95
9	6	5.75	6.25	4	3.5	3.5	4.6666667	3.3333333	6	0.86	0.9	0.77	0.5	0.57	0.27	0.88	0.23	0.95
10	2.3333333	5	5.75	3	1	3.75	4.3333333	6	3	0.03	0.75	0.5	0.25	0.05	0.34	0.73	0.93	0.1
11	6.3333333	4.25	6.5	5.5	2.75	5.25	5	3.3333333	4.6666667	0.92	0.5	0.86	0.9	0.34	0.85	0.95	0.23	0.41
12	5	2	6.5	5.5	4	4.5	4	2.6666667	5.3333333	0.5	0.08	0.86	0.9	0.7	0.61	0.5	0.08	0.73
13	6.3333333	3	6.5	4.5	5.5	4.25	3	3.6666667	6	0.92	0.2	0.86	0.68	0.92	0.5	0.18	0.35	0.95
14	3	3	6.25	4.25	2.75	4.75	4.6666667	7	3.6666667	0.07	0.2	0.77	0.59	0.34	0.7	0.88	0.98	0.18
15	5	5	6	4.75	2	5.5	5	4	3.3333333	0.5	0.75	0.65	0.75	0.16	0.89	0.95	0.5	0.13
16	3	2	6.75	3	1	4	4	3.6666667	6	0.07	0.08	0.92	0.25	0.05	0.42	0.5	0.35	0.95
17	4.6666667	3.25	5.25	4.25	3.5	4	4.6666667	5	6	0.39	0.25	0.34	0.59	0.57	0.42	0.88	0.78	0.95
18	3	5	3	3	3	5	4	5	5.3333333	0.07	0.75	0.02	0.25	0.42	0.78	0.5	0.78	0.73
19	5.6666667	5	5.25	5.25	3.75	3.75	3.6666667	3.6666667	3.3333333	0.77	0.75	0.34	0.87	0.64	0.34	0.38	0.35	0.13
20	4.6666667	4.5	5.5	3	2	5	4.3333333	5.6666667	5	0.39	0.59	0.42	0.25	0.16	0.78	0.73	0.9	0.5
21	5	1.5	5.75	1.25	4.25	3.5	4.6666667	6.3333333	5	0.5	0.05	0.5	0.05	0.75	0.27	0.88	0.95	0.5
22	3.6666667	4.25	4.25	4.75	3.25	3	4.3333333	4.3333333	6	0.15	0.5	0.12	0.75	0.5	0.16	0.73	0.61	0.95
23	5	2.75	4.75	1	4.75	4.75	4	4.3333333	6	0.5	0.16	0.21	0.04	0.84	0.7	0.5	0.61	0.95
24	5	2.5	6.5	5.5	5	1	3	2.3333333	3.6666667	0.5	0.13	0.86	0.9	0.88	0.01	0.18	0.05	0.18
25	1	7	7	7	1	5.25	5	7	4	0.01	0.98	0.95	0.99	0.05	0.85	0.95	0.98	0.25
26	4.3333333	3.25	4.25	2	1	5.25	4.3333333	4	4	0.3	0.25	0.12	0.1	0.05	0.85	0.73	0.5	0.25
27	5.6666667	5.5	6	3.75	4.5	6	1	4.3333333	5	0.77	0.87	0.65	0.43	0.8	0.95	0.01	0.61	0.5
28	5	5	5.5	4.5	1.75	5.25	5	4.3333333	4	0.5	0.75	0.42	0.68	0.12	0.85	0.95	0.61	0.25
29	7	5	7	6	2.25	4.5	4.3333333	2.6666667	6	0.97	0.75	0.95	0.95	0.21	0.61	0.73	0.08	0.95
30	7	4.25	4.5	4.75	5	1	3	3.3333333	3.6666667	0.97	0.5	0.16	0.75	0.88	0.01	0.18	0.23	0.18
31	4.3333333	1.75	5.75	1.75	3.5	2	4.6666667	3.6666667	5.3333333	0.3	0.06	0.5	0.08	0.57	0.05	0.88	0.35	0.73
32	4.3333333	7	5.5	1.25	1	3.5	5	4.6666667	3.6666667	0.3	0.98	0.42	0.05	0.05	0.27	0.95	0.7	0.18
33	5.6666667	4	5.75	4.75	4.75	4.5	3	4.3333333	3	0.77	0.43	0.5	0.75	0.84	0.61	0.18	0.61	0.1
34	5.3333333	6.25	6.75	5.5	1.5	5.25	5	6.3333333	3	0.65	0.95	0.92	0.9	0.09	0.85	0.95	0.95	0.1
35	4.6666667	5.75	6	3.75	1	4.5	4.3333333	6.3333333	3.3333333	0.39	0.9	0.65	0.43	0.05	0.61	0.73	0.95	0.13
36	4	6.25	2	2.5	1.25	5	5	3	3.3333333	0.22	0.95	0.01	0.16	0.06	0.78	0.95	0.14	0.13

Table 4

Complex solutions for the outcome conditions

Complex solution	Raw coverage	Unique coverage	Consistency
CSR skepticism findings			
Model: f_skept = f(f_ego, f_value, f_str, f_stak, f_co)			
f_ego*~f_value*~f_stak*~f_co	0.413447	0.062119	0.909314
f_ego*~f_value*f_str*~f_co	0.445311	0.093982	0.922294
solution coverage: 0.507430; solution consistency: 0.911139			
frequency cutoff: 6.000000; consistency cutoff: 0.911734			
Equity findings			
Model: f_equit = f(f_co, f_skept)			
f_co*~f_skept	0.581451	0.581451	0.852487
solution coverage: 0.581451; solution consistency: 0.852487			
frequency cutoff: 62.000000; consistency cutoff: 0.852487			
Resilience to negative information findings			
Model: f_rninfo = f(f_co, f_skept, f_equit)			
f_co*~f_skept*~f_equit	0.312618	0.085933	0.832125
~f_co*~f_skept*f_equit	0.383975	0.123734	0.819783
f_co*f_skept*f_equit	0.318704	0.068033	0.811563
solution coverage: 0.556962; solution consistency: 0.777909			
frequency cutoff: 20.000000; consistency cutoff: 0.811563			
WOM findings			
Model: f_nwom = f(f_equit, f_co, f_skept)			
~f_equit*f_co*~f_skept	0.319691	0.110014	0.859198
f_equit*f_co*f_skept	0.344954	0.135276	0.886917
solution coverage: 0.454967; solution consistency: 0.847142			
frequency cutoff: 20.000000; consistency cutoff: 0.859198			

Table 5

Configurations for achieving high levels of the outcome conditions.*

	Solutions and pathways for high membership score in the outcome conditions											
	Outcome condition											
	CSR skepticism			Retailer equity		Resilience to negative information				WOM		
Antecedent condition	**1st**	**2nd**	**Conclusion**	**1st**	**Conclusion**	**1st**	**2nd**	**3rd**	**Conclusion**	**1st**	**2nd**	**Conclusion**
Egoistic-driven motives	•	•	● (H1√)									
Values-driven motives	○	○	○ (H2√)									
Strategic-driven motives		•	Ø (H3¢)									
Stakeholder-driven motives	○		Ø (H4×)									
CSR skepticism				○	○ (H5√)	○	○	•	Ø (H6¢)	○	•	Ø (H7¢)
Retailer equity						○	•	•	Ø (H8¢)	○	•	Ø (H9¢)
Customer orientation	○	○	○ (√)	•	● (√)	•	○	•	Ø (¢)	•	•	● (√)

*Black circles indicate very high presence of a condition, and white circles indicate very low presence (i.e., absence) of a condition. Large black (white) circles indicate a core-necessary condition of presence (absence). "Ø" indicates a peripheral (not necessary) condition. Blank spaces in a pathway indicate "don't care". "√" indicates that the respective finding presented in SL's study is supported by the present fsQCA analysis, "¢" indicates that the respective finding is conditionally supported, and "×" indicates that the respective finding is not supported.