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Embracing Complex Causality with the QCA Method: An Invitation

Martin R. Schneider · Andreas Eggert

Abstract: This article introduces qualitative comparative analysis (QCA) to a broader community of business marketing researchers. Drawing on the commitment-trust theory of relationship marketing as an example, authors argue that four forms of causality exist and can be identified with the QCA method. More traditional correlation-based analyses, in contrast, focus on one form of causality: conditions that are necessary and at the same time sufficient. Against this background, a five-step approach to the QCA method is presented and good-practice guidelines for QCA researchers are offered. Building on the QCA methodology, business marketing researchers can deepen their understanding of the discipline and develop a more comprehensive view on complex causality.

Keywords: Qualitative comparative analysis · Complex causality · Commitment-trust theory

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Complex Causality in Business-to-Business Marketing

Business-to-business marketing explores complex and heterogeneous phenomena such as inter-firm relationships, personal selling and value co-creation (Grewal and Lilien, 2012). To gain a deep understanding of business marketing, we need to embrace its complexity. In this sense, Scheer (2008) called for more research disentangling different units of analysis in business-to-business marketing, e.g. customers' company-owned loyalty and salesperson-owned loyalty (Palmatier et al., 2007; Eggert et al., 2012). There is another promising route for deriving further insights on the fundamental mechanisms of business-to-business marketing: exploring complex causality.

Complex causality is attracting increasing attention among researchers in academic disciplines as diverse as political (e.g. Redding and Viterna, 1999) and social sciences (e.g. Cress and Snow, 1996), history (e.g. Kiser et al., 1995) and management (e.g. Fiss, 2011; Woodside, 2013). When adopting a complex causality perspective, researchers distinguish between necessary and sufficient conditions. While necessary conditions imply that the focal outcome can only be attained in the presence of the causal factor, sufficient conditions indicate that a causal factor always leads to the focal outcome (Fiss, 2007).

Take the example of the commitment-trust theory of relationship marketing (Morgan and Hunt, 1994). At its core, it posits that trust causes commitment and that both variables function as key-mediating variables in a relationship marketing context. From a complex causality perspective, we might further explore the trust-commitment link and consider four different forms of causality. First, trust could be a necessary yet not sufficient condition for commitment, that is, high levels of commitment between relationship partners can only be attained in situations of high trust. However, there may be relationships with high levels of trust that do not translate into strong commitment between the relationship partners. Second, trust might be a sufficient yet not necessary condition for commitment, that is, relationship partners enjoy high levels of commitment whenever they trust each other. However, situations may exist where relationship partners are strongly committed even though they do not trust each other. Third, trust could be part of a sufficient combination of conditions without being sufficient or necessary by itself. For example, trust could sufficiently explain high commitment in conjunction with others factor such as a high relationship benefit. In such a constellation, trust would be a so-called "INUS condition": "an *insufficient* but *necessary* part of a condition which is itself *unnecessary* but *sufficient* for the outcome" (Mackie, 1965, p. 246). Finally, trust could be a necessary and sufficient condition for commitment, that is, in high trust situations, we always find strong commitment, and strong commitment without high levels of trust is inconceivable.

It is important to note that empirical research employing regression-type analyses (such as multiple regressions or structural equation modeling) focuses on the latter form of causality: causal conditions that are at the same time necessary and sufficient. We argue that this perspective might be too narrow to capture the complexity of causality in business marketing, and we may gain deeper insights if we adopted a configurational

view. “[C]onfiguration theory posits that the same set of causal factors can lead to different outcomes, depending on the nature of the intertwining of those factors” (Ordanini et al., 2013, p. 7). Qualitative comparative analysis (QCA) is a method for empirical analysis (Ragin, 1987, 2000, 2008) that explicitly distinguishes between necessary and sufficient conditions. QCA also captures “equifinality”, which assumes that multiple paths to a desired outcome may coexist (Fiss, 2007). While we aim to identify the one and only model that best explains our empirical data in regression-type analyses, QCA recognizes that different combinations or sets of conditions may lead to the same outcome. It therefore allows us to uncover all of the four types of causality mentioned above.

The purpose of this paper is to invite the broader business-to-business marketing community to applying the QCA method. To this end, we first make a case for distinguishing conceptually and empirically between necessary and sufficient conditions and compare the fundamental characteristics of the QCA method to those of more traditional regression-type data analyses approaches. We next describe how to conduct a QCA in five steps. Then we briefly summarize available resources for QCA and offer some guidelines of good practice, emphasizing the need to diverge in QCA from common practice among regression analysts. Finally, we sum up our discussion and call for more research embracing the complexity of causal relationships in business-to-business marketing and beyond.

Complex Causality and the Regression-Based Perspective

Figure 1 shows a fictitious scatter plot of trust and commitment in business relationships. Most data points are positioned below the diagonal. From a complex causality perspective, this scatter plot indicates that high levels of commitment require high levels of trust. In other words, trust qualifies as a necessary condition for commitment. What would happen if we ran a regression analysis on this data? Regression analysis would estimate a positive regression coefficient between trust and commitment, yet with the caveats of apparent heteroskedasticity and of a poor model fit because many data points would have substantial distance to the regression line (Goertz and Mahoney, 2012, pp. 25–29).

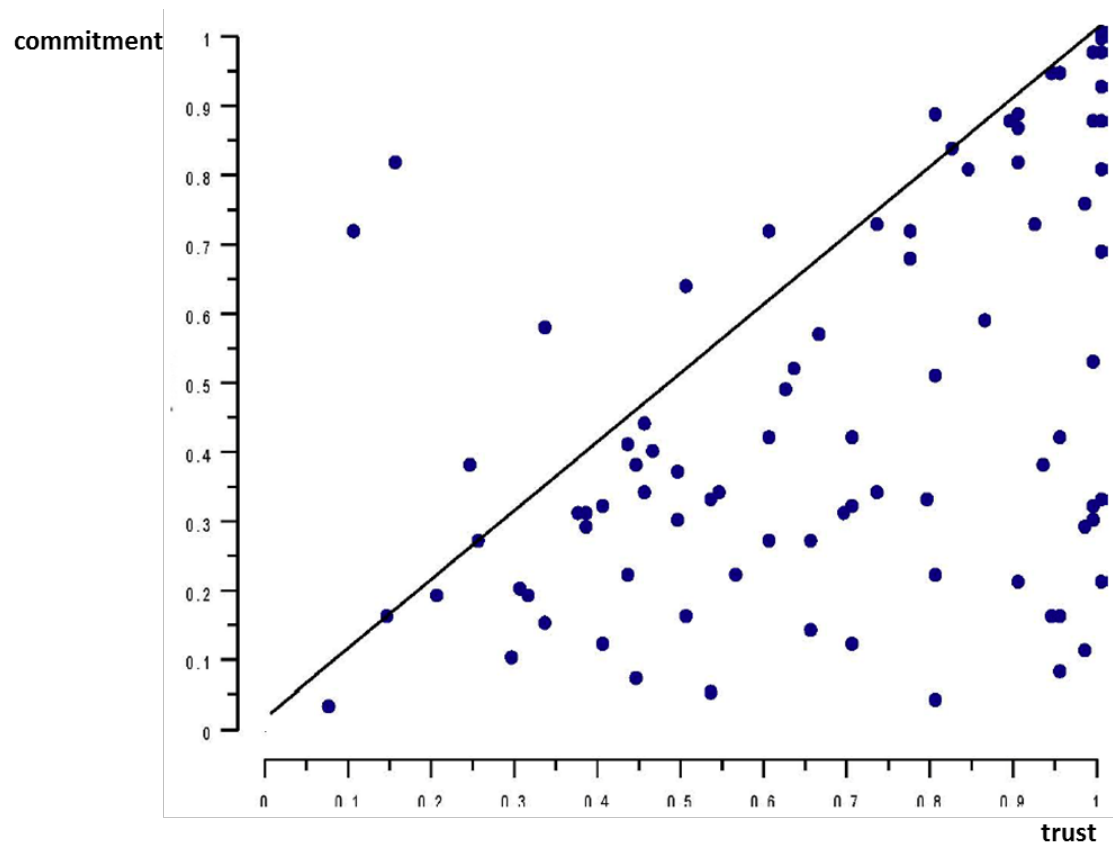
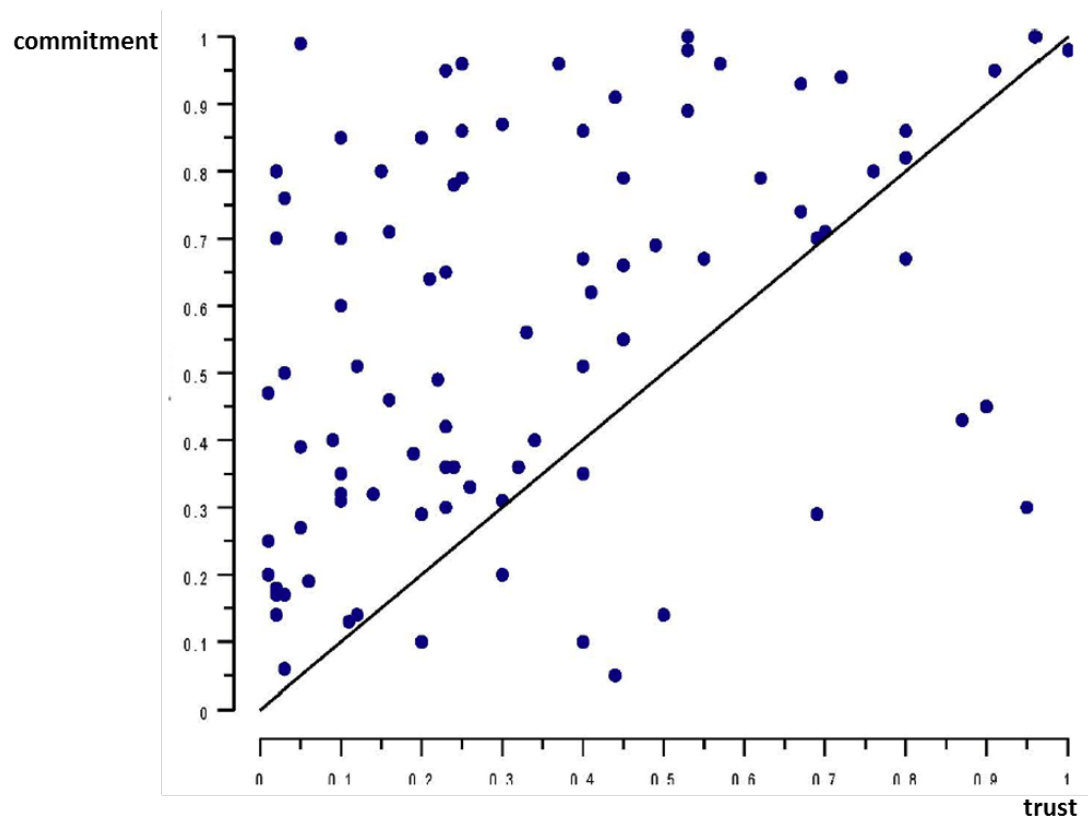
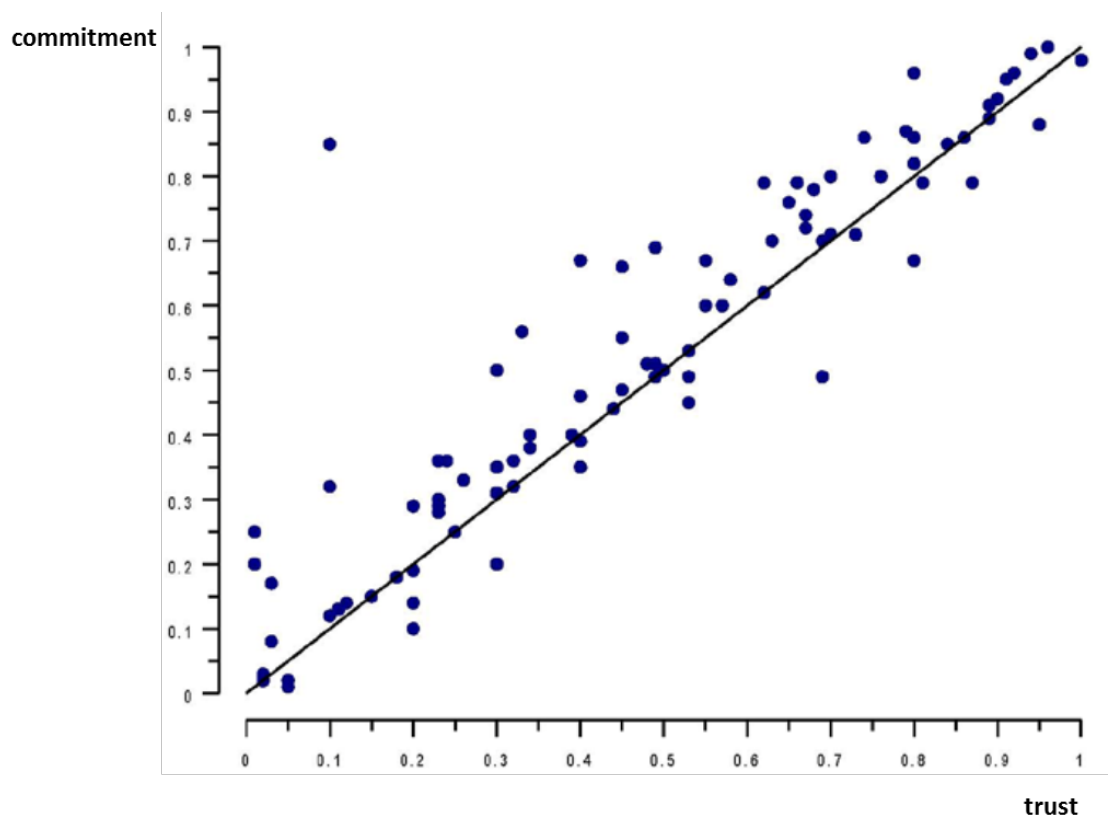
Fig. 1: Trust as a necessary condition for commitment

Figure 2 presents another fictitious scatter plot of trust and commitment. Now, most data points are placed above the diagonal indicating trust as a sufficient condition for commitment from a complex causality perspective. Regression analysis, in contrast, would produce another apparently heteroskastic and poorly fitting model. Compared to Figure 1, the estimated regression coefficient between trust and commitment would be slightly higher, yet many outliers result in a poor model fit as indicated by a low R² value.

Fig. 2: Trust as a sufficient condition for commitment

Finally, Figure 3 depicts a situation where most data points are scattered around the diagonal. Such a scatter plot reflects trust as a necessary and sufficient condition for commitment. Once again, regression analysis would produce a positive regression coefficient between trust and commitment. This time, however, a high R^2 value would indicate a good model fit with few outliers.

Taken together, these three examples show that regression-based analyses have a narrow understanding of causality as they strive to identify only conditions that are both necessary and sufficient ("necessary/sufficient conditions"). Observed cases in the upper left or lower right corner of the commitment-trust diagram that substantiate a necessary or sufficient condition from a complex causality perspective are treated as outliers reducing the model fit in more traditional regression-based analyses. Against this background, business-to-business marketing scholars could provide a finer grained understanding of the causal mechanisms underlying our discipline by adopting a complex causality perspective.

Fig. 3: Trust as a necessary and sufficient condition for commitment

Scrutinizing the literature in the business-to-business marketing domain and beyond, we recognize a notable inconsistency between theoretical discussions and hypotheses development on one hand, and their empirical testing on the other. Though the theory posits causal complexity, which would call for QCA, most authors apply correlation-based methods such as regressions. Several authors advanced the idea that trust might be a necessary yet not sufficient condition for the development of commitment (e.g. Ganesan, 1994; Mukherjee and Nath, 2007). For example, Hakansson and Snehota (1995, p. 198) emphasize: “Trust is a necessary condition for commitment and commitment only makes sense if tomorrow matters.” In a human resource management context, Milgrom and Roberts (1992, p. 30) propose that trust is a necessary condition, but on its own not enough to create employee commitment levels. When it comes to formulating and testing their hypotheses, however, most scholars rely on regression-based logic and therefore test the existence of necessary and sufficient conditions. With rare exceptions (e.g. Aurier and N’Goala, 2010), most hypotheses in the marketing domain are formulated in a ‘the higher, the higher’ fashion, implicitly assuming necessary/sufficient conditions, even though the theoretical discussion may have proposed a finer grained perspective on causality. As an example, Mukherjee and Nath (2007, p. 1177) discuss trust as a necessary condition for trust (cf. Figure 1), yet formulate and test the hypotheses that higher levels of trust lead to higher levels of commitment, implying trust as a necessary/sufficient condition for commitment (cf. Figure 3).

Fuzzy-set QCA in five steps

Compared to regressions, QCA is better suited to capture the complex causality often included in business-to-business marketing models. To illustrate this point, we introduce QCA in a non-technical, intuitive fashion (more rigorous and technical introductions are available elsewhere, Ragin, 2008; Cooper et al., 2012; Schneider and Wagemann, 2012; Fiss et al., 2013; Schulze-Bentrop, 2013). We continue the trust-commitment example. Imagine your sample includes, along with data on trust and commitment, also information on two important factors related to commitment: relationship benefits and relationship termination costs (Morgan and Hunt, 1994). As the variables are metric, the appropriate variant of QCA is fuzzy-set qualitative comparative analysis (fsQCA). To analyze the complex causality in the data, essentially you need to proceed in five steps.

Step 1. Calibrate raw values into fuzzy-set membership values

Take the raw values in your sample and convert them into membership values ranging from 0 to 1. By calibrating, you leave the world of quantitative, correlation-based analysis and enter the world of qualitative, set-theoretic analysis (Goertz and Mahoney, 2012). The world you enter is qualitative, among other things, because you interpret the membership values as degree to which the observation shares the property of interest. The respondent either trusts or does not trust. There may be shades of gray – which is why we consider fuzzy sets – but ultimately you are able to decide whether trust is rather present or rather absent – whether the case you observe is more in the set or more out of the set. The membership values range from 0 to 1, with 0 indicating your observation is completely out of the set, and 1 indicating your observation is completely in the set. The 0.5 value is critical as it indicates that a cases is as much in the set as out of the set. In practice, the 0.5 value should be avoided because you exclude cases from the analysis (see below). Having left the world of regressions, ANOVAs, and structural equations, you now refer to commitment as the “outcome” and to relationship benefits, termination costs, and trust as “causal conditions” or “conditions”.

Assume you analyze six observations, summarized in a truth table (Table 1).

Tab. 1: Truth table with fuzzy-set values

ID	Relationship Benefits (B)	Termination Costs (C)	Trust (T)	Commitment (COM)
1	0.8	0.4	1.0	1.0
2	0.6	0.6	0.2	0.8
3	0.6	0.8	0.8	0.6
4	0.4	0.6	0.4	0.6
5	0.6	0.2	0.2	0.2
6	0.4	0.2	0.4	0.0

Among your six observations, ID numbers 1 through 4 show strong relationship commitment, the remaining two observations do not. There are three observations (ID 1 and 3) where trust is present; for the others, trust is absent. Is trust necessary? Or perhaps is one of the other conditions necessary?

Step 2. Analyze necessary conditions

A necessary condition implies that the outcome is not present unless the condition is also present. In other words, when you observe the outcome, you will always observe the condition. But if you observe the condition, you may or may not observe the outcome. In set-theoretic terms, a condition is necessary if – for all observations – the membership values of the condition exceed the membership value of the outcome. For trust (T) and commitment (COM), this would call for: $T_i \geq COM_i$ for $i=1, \dots, 6$. In the example, no single condition is necessary. Trust is not necessary because for ID numbers 2 and 4, the membership value for trust is lower than the membership value of the outcome. In other words, for ID numbers 2 and 4, commitment is high (larger than 0.5) though trust is not. It is therefore obvious that trust is not necessary for commitment. Likewise, relationship benefit cannot be considered a necessary condition because of ID numbers 1 and 4; and termination costs, because of ID numbers 1, 2, and 6.

Step 3. Turn your cases into ideal types

No condition is necessary – but which one is sufficient? To address that question, you need to derive ideal types. In Table 2, the observations of Table 1 are converted into such ideal types by assigning a 0 to all fuzzy-set values below 0.5, and a 1 to all fuzzy-set values above 0.5. Information is lost in this step because we abstract from differences of degree here. For an ideal type analysis, it does not matter whether an observation is at 0.8 or at 0.7; it only matters whether it is above or below the 0.5 threshold. As mentioned, the 0.5 value should be avoided altogether, and we see here why: Cases with a 0.5 value will belong to more than one single ideal type and they must be included from the further analysis. Conversely, as we summarize the data in crisp set values, it is possible that multiple observations or real cases are lumped into one ideal type. That is not a problem, however. In our simplified analysis, it happens that each ideal type is represented by one single observation. Note that the number of ideal types depends on the number of conditions in a systematic way. Given n conditions, 2^n ideal types are logically possible. In our example, 2^3 or eight ideal types are defined, of which we observe six. The fact that the number of logically possible ideal types exceeds the number of observations, is termed “limited diversity” (Schneider and Wagemann, 2012, pp. 157–160).

Tab. 2: Truth table with crisp-set values (ideal types)

ID	Relationship Benefits (B)	Termination Costs (C)	Trust (T)	Commitment (COM)
1	1	0	1	1
2	1	1	0	1
3	1	1	1	1
4	0	1	0	1
5	1	0	0	0
6	0	0	0	0

Step 4. Analyze sufficient conditions and reduce your solution

A sufficient condition implies that the outcome will be present whenever the condition is present. But when the condition is absent, the outcome may still be present. Technically, a condition is sufficient if for all observations the membership value of the condition is lower than the membership value of the outcome.

It is easy to see from Table 3 that the ideal types represented by ID numbers 1 to 4 are all linked to strong commitment and are technically sufficient because the membership value of commitment is 1 in each case. But this is only a first answer. We are interested in more compact solutions, i.e., solutions that are shorter than saying high benefits combined with high termination costs combined with trust sufficiently explain strong commitment. Such a reduction of the solution terms is achieved through comparing the four ideal types, and the comparison becomes easier with an alternative language to describe the crisp-set truth table.

Tab. 3: Alternative description of ideal types

ID	Relationship Benefits (B)	Termination Costs (C)	Trust (T)	Commitment (COM)
1	B	c	T	COM
2	B	C	t	COM
3	B	C	T	COM
4	b	C	t	COM
5	B	c	t	com
6	b	c	t	com

In Table 3, the presence of a condition is denoted by a capital letter, and the absence of a condition by a minor letter. The ideal type represented by ID 1, for example, can be described as BcT, or high benefits combined with low termination costs and high trust. Pairwise comparisons can now help you to find more economical ways of describing sufficient conditions. Compare ID numbers 1 and 3. Both BcT and BCT sufficiently explain commitment, and the two expressions differ only in the termination costs. Apparently, it does not matter – given high benefits and high trust – whether termination

costs are high or not. The condition of termination costs (or its absence) is superfluous in sufficiently explaining commitment, as long as both relationship benefits and trust are high. Therefore, we can reduce BcT and BCT to BT. By the same procedure, BCt and bCt (ID numbers 2 and 4) can be reduced to Ct, and BCt and BCT (ID numbers 2 and 3) can be reduced to BC. The expression describing sufficient conditions for commitment then reduce to: $BC + BT + Ct$. The “+” denotes a Boolean “or”. So commitment can be sufficiently explained by high benefits and terminations costs (BC) or high benefits and high trust (BT) or high termination costs and low trust (Ct).

The example illustrates causal complexity (Schneider and Wagemann, 2012, pp. 78–79). The sufficient conditions are in fact combinations of conditions. It is not trust or some other factor alone that explains commitment but, rather, different combinations of conditions such as trust and high benefits. This aspect of causal complexity is termed “conjunctural causation”. Another aspect of causal complexity is “equifinality”. Not a single combination of conditions explains the outcome but, rather, a number of alternative causal paths. Equifinality is often overlooked when applying linear, correlation based models (Fiss, 2011). Finally, causal links are complex because they may be “asymmetric”. Causal asymmetry, among other meanings, implies that – depending on the causal path – the absence and the presence of a condition may both be linked to an outcome. In the example, both high trust (in BT) and low trust (in Ct) are part of a causal path; they both are an INUS condition.

Step 5. Evaluate your solutions – and perhaps go back to your previous steps

The example was extremely simplified. When the sample is larger, the analysis will yield solutions that are more difficult to interpret. Imagine, for example, that among 100 observations a condition is not found to be strictly necessary but this is caused only by outliers. That exception may be the result of measurement errors, so it might be useful to relax your rule for necessity and speak of an “almost necessary condition”. A similar problem arises in the analysis of sufficiency. The causal paths you arrive at are usually represented by more than one observation. Even when these are identical in terms of their ideal types, in some cases the apparently sufficient condition may show a negative outcome. For example, 19 cases with high benefits and high trust show high commitment but a single case with high benefits and high trust shows low commitment. It may then be preferable to relax the rule for sufficiency and state that a solutions term sufficiently explains the outcome with a certain level of consistency. A number of “parameters of fit” – termed coverage rates and consistency rates – have been developed for both necessary and sufficient conditions (Schneider and Wagemann, 2012, pp. 119–150). Note that for the calculation of parameters of fit, in fuzzy-set QCA we leave the ideal type analysis and resume fuzzy-set analysis in order to benefit from the information included in the fine-grained membership scores.

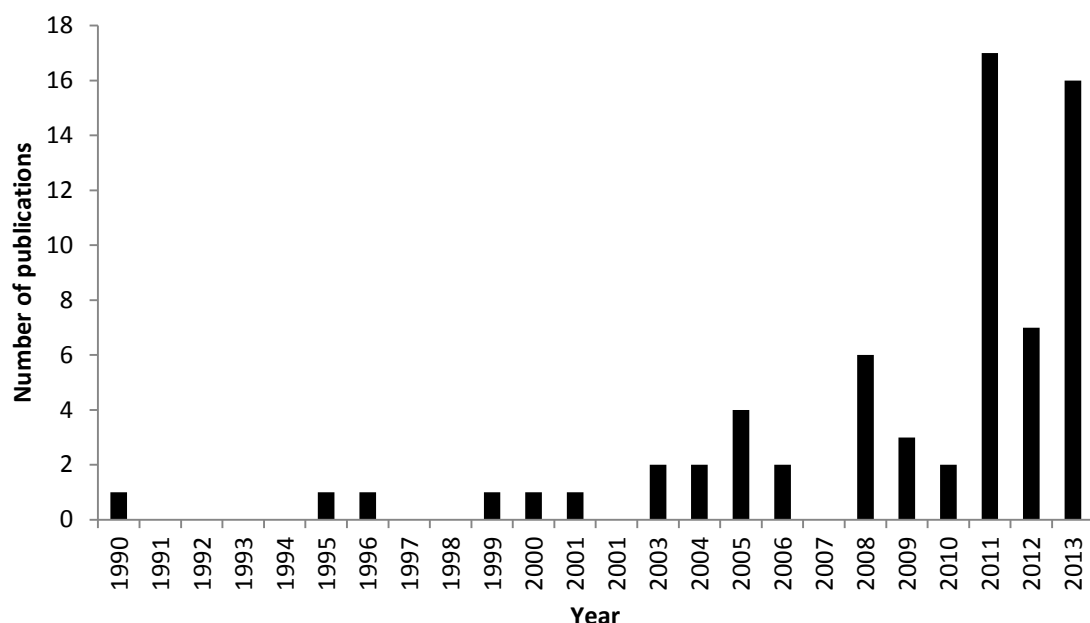
Weak parameters of fit as well as cases that contradict the general pattern may cue you to re-think the analysis. You may then revise your theory or list of conditions and repeat one or several of the previous steps of the analysis. The “back and forth between ideas and evidence” (Schneider and Wagemann, 2012, p. 11) is considered as essential

part of QCA (Ragin, 1987; Fritzsche, 2013), and this reflects the origin of QCA in qualitative research (Goertz and Mahoney, 2012).

Good practice in QCA: Some guidelines

In recent years, the number of publications applying QCA has increased substantially (Figure 1, Rihoux et al., 2013), and papers applying the method have been accepted in important journals in business and management (for example, Kogut et al., 2004; Fiss, 2007, 2011; Grandori and Furnari, 2008; Pajunen, 2008; Crilly, 2010; Schneider et al., 2010; Greckhamer, 2011; Crilly et al., 2012; Hotho, 2013; Bell et al., 2014; Meuer, 2014; Iseke et al.) as well as in marketing (Kent, 2005; Kent and Argouslidis, 2005; Koll et al., 2005; Woodside, 2012; Woodside and Zhang, 2012). But the number of publications is still low compared to regressions and other correlations-based methods, and the scientific community is only beginning to establish a common understanding of good practice (for example, Fiss et al., 2013). In what follows, we therefore offer some guidelines on good practice and comment on available resources.

Fig. 3: Published QCA models in the fields of Business, Economics, Management, and Organizations



Source: own calculations from <http://www.compass.org/bibdata.htm>, retrieved Februar 6, 2014

Why QCA and not regressions?

The first fundamental issue is whether QCA should be chosen at all, given that in the marketing community, correlation-based methods are better established. Traditionally, QCA was considered appropriate for relatively small samples, i.e., in the range of 10 to 50 cases. This view is outdated because it is misleading in two ways (Greckhamer et al., 2013).

First, a QCA with larger samples is technically possible and can produce meaningful results (Cooper et al., 2012). A growing number of QCA publications is based on samples beyond 100 and up to some 6,000 cases (for an overview, Schulze-Bentrop, 2013, pp. 32–48). Though large samples give rise to special problems which call for procedures that partly differ from those in QCA with small samples (Cooper and Glaesser, 2011; Greckhamer et al., 2013; Schulze-Bentrop, 2013), QCA might be considered an alternative to regression analysis for samples of any size.

Second, the restriction of QCA to small samples is also misleading because the choice of method should not be determined by the number of cases but by theory and type of research question. QCA is better than regressions when the links are complex, i.e., when they are anticipated to involve conjunctural causation, asymmetric links, and equifinality (Fiss, 2007; Schulze-Bentrop, 2013). QCA is also better than regressions when your research question is of the “causes-of-effects” type, i.e. when you are interested in identifying all the main causes of a certain outcome (Goertz and Mahoney, 2012, pp. 41–50). Conversely, QCA is inferior to regressions when your research question is of the “effect-of-causes” type, i.e., when you try to estimate how much a particular factor influences the outcome. Then, regressions allow you to quantify effects sizes and to set up an experimental or quasi-experimental design (Goertz and Mahoney, 2012, p. 52).

In sum, the choice of QCA of regressions should not be based on sample size but on the research question (causes-of-effects rather than effect-of-causes) and on the theoretical links suspected in the data (complex and configurational rather than additive and linear).

Key choices in setting up a QCA model

In setting up a QCA model, you may encounter a number of problems that mostly stem from routinely applying conventions of regression analysis. In regression analysis, researchers focus on few key causes, posit linear, additive effects of causes on a dependent variable, and include in their estimations a number of control variables. From this, a good QCA model differs in a number of important ways.

First, hypotheses in QCA are framed in the language of necessary and sufficient conditions. In regression analysis, the theory is usually summarized by a number of hypotheses that lend themselves directly to significance testing. You may posit, for example, that trust will be positively associated with commitment. Such a hypothesis assumes a linear, additive model. But as in QCA causal complexity is anticipated, the hypotheses should refer to necessary and sufficient conditions. For example, as an appropriate hypothesis in QCA, you could state that trust is a necessary but not sufficient condition for commitment.

Second, hypotheses in QCA are configurational but probably cannot match the complexity of the data. In regression analysis, hypotheses usually concentrate on one or two key factors. But the ideal type analysis in QCA allows you to uncover how

combinations of various conditions sufficiently explain an outcome, and these combinations can be interpreted as types or synergistic configurations (Fiss, 2007, 2011; Kvist, 2007; Jackson and Ni, 2013). Though this feature of QCA is attractive, it is also demanding. In a QCA with five conditions, as we saw, there will be 2^n or 32 logically possible ideal types and combinations. Developing a typology that plausibly predicts sufficiency (or not) for each and every combination is impossible. This can be handled in various ways. QCA should be applied in a deductive way by explicitly stating configurational hypotheses (Greckhamer et al., 2013, pp. 54–55), a recommendation that has not been followed very often (Fiss, 2011; Iseke et al.). Most researchers refrain from stating predictions but identify causal conditions and then apply QCA in a mostly inductive way (for example, Crilly, 2010; Crilly et al., 2012; Meuer, 2014). Some researchers combine deductive and inductive reasoning by positing “propositions” rather than full-fledged hypotheses and commenting post hoc on the observed empirical patterns (Schneider et al., 2010; García-Castro et al., 2013).

Third, calibration is made transparent and follows prior knowledge. In regression analysis, metric values of variables are taken as gradual measures, but in QCA fuzzy-set values are interpreted as reflections of qualitative properties. In QCA, there is a fundamental difference between 0.4 and 0.6 and the calibration influences the results. Therefore, researchers should account explicitly for the calibration details, and the calibration should be defended in terms of theory or previous empirical knowledge. Fortunately, substantive findings are often robust to minor changes in calibration, and some guidance on the technicalities of the calibration process is now available (Schneider and Wagemann, 2012).

Fourth, in QCA there is no such thing as a control variable (Greckhamer et al., 2013, pp. 60–61). Regression analysis mostly follows an effect-of-causes-model. Here, including an additional control variable helps researchers to approach the experimental ideal. QCA, in contrast, mostly follows an effect-of-causes model. Here, conditions are included if and only if they are considered to be among the chief causes of the outcome. Additional conditions may actually harm results: as the number of ideal types increases, the complexity of the causal explanations rises and a smaller share of ideal types will be observed (Schulze-Bentrop, 2013, pp. 50–51).

In sum, researchers should formulate hypotheses in terms of necessity and sufficiency; they should think in configurations, consider fuzzy-set values as reflections of qualitative properties, and should include causal conditions based on prior knowledge. In other words, QCA essentially is not a quantitative but a qualitative method (Goertz and Mahoney, 2012).

Helpful resources

Researchers may benefit from a growing supply of resources. The best starting point for QCA is <http://www.compass.org/>, an invaluable website started by Benoit Rihoux. It includes among other things a bibliography; working papers; and information on networks, training opportunities, and software packages. A number of software packages for the different variants of QCA are available, including one by the inventor

of the method, Charles Ragin (fs/QCA) and one for the statistics software R (Thiem and Dusa, 2013, <http://www.compasss.org/software.htm>).

Also available now are textbooks as well as introductory chapters and articles. Perhaps the most efficient introduction to the method is provided by Ragin's (1987, 2000, 2008) seminal books and a recent, comprehensive textbook (Schneider and Wagemann, 2012). Some more specific work has been devoted to QCA in organization and management (Fiss, 2007; Fiss et al., 2013; Schulze-Bentrop, 2013), to QCA with large sample sizes (Cooper et al., 2012) and to QCA in marketing (Vassinen, 2012). Some work is also available that systematically reviews the growing literature (Schulze-Bentrop, 2013; Marx et al., 2014).

Conclusion

By embracing complex causality, the business-to-business marketing domain can gain deeper insights into the conditions that cause a desired outcome, such as customer firm commitment, loyalty, or relationship performance. While traditional statistical analyses focuses on conditions that are necessary and at the same time sufficient for the outcome, the QCA method distinguishes between four different forms of causality. It also allows that multiple paths to the desired outcome coexist and thereby captures equifinality. In sum, the QCA method provides a more differentiated perspective on causality than correlation-based approaches to data analysis.

This paper provides an introduction to and overview of the QCA method. Referring to the commitment-trust theory of relationship marketing as a guiding example, we introduce four different forms of causality and delineate a five step approach to fuzzy set QCA analysis. We offer guidelines for good practices in QCA analyses and refer to websites, textbooks, and journal articles that provide further background knowledge and know-how concerning the use of the QCA method. We hope that this invitation will further stimulate the growing interest in configurational approaches in the business marketing discipline and will serve as a useful starting point for readers that want to learn more about this rich and exciting perspective on causality.

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