

Improving Research on Thinking and Deciding by Executives

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Abstract

While a meta-analysis is necessary to test the claim that the logic dominates the majority of studies, most studies by academic scholars on thinking and actions by executives appear to rely on cross-sectional surveys that use self-reports by executives via scaled (e.g. strongly disagree to strongly agree) instruments whereby one executive per firm completes the instrument and data are collected for 50 to 500 firms. Useable response rates in these studies are almost always below 30 percent of the distributions of the surveys. While these studies are sometimes worthwhile for learning how respondents assess concepts and relationships among concepts, perspectives on the severe limits to the value of such studies rings true: such surveys reveal more about executives' sensemaking processes than the actual processes. The limitations of using one-shot, one-person-per-firm, self-reports as valid indicators of causal relationships of actual processes are so severe that academics should do more than think twice before using such surveys as the main method for collecting data— if scholars seek to understand and describe actual processes additional methods are necessary for data collection. The relevant literature includes several gems of exceptionally high quality, validity, and usefulness in the study of actual processes; identifying these studies is a useful step toward reducing the reliance on one-shot self-report surveys.

Keywords: direct research, executives, folk theory-of-mind, fs/qca.com, sensemaking, surveys, thinking

Improving Research on Thinking and Deciding by Executives

Research for accurate descriptions of actual thinking and deciding processes that executives use is likely useful for creating effective training programs to improve their thinking and deciding processes. Rong and Wilkinson (2011) provide an important review of many shortcomings in the widespread use of cross-sectional self-report surveys to collect data on interpretations and deciding by executives. Rong and Wilkinson focus in particular on the measurement of market orientation (MO) and how studies examine the hypothesis that increases in MO influences increases in organizational performance. They point out that most studies do not include attempts to create and test alternative causal sequences, feedback, and interaction effects in thinking and deciding.

The study here considers perspectives and advances into theory of how executives explain their thinking and actions. Please note the difference between the statements “theory of how executives explain their thinking” and “theory of how executives think.” Section two follows this introduction and addresses issues relating to logic now dominating in theory construction and testing in research in marketing. Section three considers alternative research paradigms. Section four concludes with a call to get out!

ISSUES RELATING TO THE DOMINANT LOGIC IN RESEARCH IN MARKETING

The reliance by most scholars on multiple regression analysis (MRA) including structural equation models (SEM) usually goes hand-in-hand with proposing and testing only one causal model when three to ten models are equally plausible and would perform equally well statistically with the one that authors include in their study.

Gigerenzer (2010) emphasizes that the methods that researchers use influence their theory creation, testing, and evaluation. Several additional problems occur with MRA/SEM in particular and statistical hypothesis testing in general that reflect Gigerenzer's (2010) wisdom. Most statistical hypothesis tests in research in marketing are interindividual analyses that estimate relationships for a population. However, as classical mathematical-statistical theorems (the ergodic theorems) show, such analyses do not provide information for, and cannot be applied at, the level of the individual, except on rare occasions when the processes of interest meet certain stringent conditions.

When psychological processes violate these conditions, the interindividual analyses have to be replaced by analysis of intraindividual variation in order to obtain valid results (Molenaar and Campbell 2009). While MRA focuses on net effects and SEM on statistical significance of one set of relationships, other theoretical approaches and testing methods examine several alternative causal paths (causal recipes); these other methods include system dynamics simulations and fuzzy-set qualitative comparative analysis (fs/QCA).

CONSIDERING ALTERNATIVE THEORY AND RESEARCH PARADIGMS

While mostly unknown by researchers in marketing before 2010, Ragin's (2009) fs/QCA advances and software (fs/QCA.com) are appearing in marketing-related studies (e.g. Woodside 2010; Woodside and Zhang 2011). Rather than relying on matrix algebra as MRA and SEM do, fs/QCA relies on Boolean algebra. QCA and fs/QCA focus on testing alternative, theory-based, complex (conjunctive) causal recipes of antecedent conditions (including context influences) rather than MRA's focus on net-effects contributions of individual variables. Ragin (1997) provides a useful treatise on the alternative value of fs/QCA to MRA/SEM as the title of his

article indicates, “Turning the tables: How case-oriented research challenges variable-oriented research.”

Rong and Wilkinson (2011, p. 8) describe how the relevant literature indicates the importance of alternative research designs and environmental contexts in resolving paradoxical findings:

... Longitudinal studies do not support a significant relation between MO and performance. For example, using a longitudinal design, Noble, Sinha, and Kumar (2002), find a positive relationship between competitor orientation and objective performance but the customer orientation-performance and the inter-functional coordination-performance links are not significant. Among the 20 studies that examine the moderating effect of the environment identified by Kirca, Jayachandran, and Bearden (2005) 18 studies report opposite/insignificant relationships...Meta-analyses of the MO-performance-environment research argues that both contextual issues and methodological issues can explain such inconsistent results (Cano, Carrillat, & Jaramillo, F. 2004; Ellis 2006; Kirca et al. 2005).

While not referring to the concepts of Malle (2004), the third major part of Rong and Wilkinson (2011) offers valuable advances useful for developing a “folk theory-of-mind” (Malle 2004) of how executives think when answering questions asked by themselves and others about actual processes completed or currently being implemented in their firms. Folk theory-of-mind refers to the study, description, and advancing understanding of how humans come to understand and make sense of relevant behavior and their intentions.

Because executives often commit firms to action based on their interpretations and sensemaking conclusions, formal development of a “folk theory-of-minds-of-executives” is worth pursuing. This perspective supports the conclusion that Rong and Wilkinson’s creation and discussion of their Table 1 and Figures 1 and 2 are useful insights in developing useful folk theory of the minds of executives and that such work is necessary.

Because the research evidence supports the conclusion that executives’ views of reality are highly biased, often inaccurate, and lacking in necessary complexity, deep understanding, description, and prediction of executives’ views of reality and what they are likely to do are worthy of study.

Folk Theory-of-Mind

Folk theory-of-mind of executive thinking indicates how executives come to believe what they believe as well as how executives describe relationships among concepts in their set of beliefs. Causal mapping (Eden and Ackerman 2004) of thinking by executives is a research method useful in advancing a folk theory-of-mind in the context of explanations by executives.

A key point here is advancing folk theory-of-mind and using causal mapping methods is not the same activity as sensemaking (Weick 2000) or advancing theory of actual thinking-doing processes. While theory and research on sensemaking (e.g., Daft and Weick 1984; Weick 2000) overlap with advances in folk theory-of-mind, the two psychology of management sub-disciplines have distinctly different objectives. Sensemaking includes mindfulness—describing and understanding great wisdom in thinking and acting in comparison with thinking and acting that sometimes lead to disaster (Maclean 1992; Weick 1993). While folk theory-of-minds-of-executives focuses on how and what managers think and how they act, sensemaking focuses on discerning effective thinking-actions versus ineffective thinking-actions.

Sensemaking also overlaps with system dynamics modeling in attempting to learn the nuances and “hidden demons” in feedback loops and the power of seemingly minor events and relationships in actual processes. The seminal studies by Hall (1976, 1984, 1999) and Hall and Menzies (1983) illustrate system dynamics modeling for understanding actual processes and outcomes by firms.

Rong and Wilkinson (2011) and others (e.g., Mintzberg 1979) close their article with the call for use of alternative methodologies that reduce the effect of sensemaking bias on the measures used and which provide better tests of causal ordering of model variables. A good call!

However, a more confrontational statement may be necessary to awaken academics to stop relying on 7-point scales in context-free surveys than Rong and Wilkinson’s call. Does anyone really believe that the executives’ responses to 7-point scales provide substantive information about how they actually think and what is actually happening in their firm and with other firms? Given that most thinking occurs unconsciously and people have limited access to most of their thinking (Wilson 2002; Woodside 2010), direct questioning is insufficient for understanding and describing actual thinking-doing processes.

Also, the lack of depth and substance in reports of means and regressions models based on 7-point scales needs recognition. Mintzberg (1979) offers the following assessment of 5 or 7-point scales in supporting his propositions for doing “direct research”:

[Reporting on thinking to himself] “HMMMM . . . what have we here? The amount of control is 4.2, the complexity of environment, 3.6.” What does it mean to measure the “amount of control” in an organization, or the “complexity” of its environment? Some of these concepts may be useful in describing organizations in theory, but that does not mean we can plug them into our research holus-bolus

as measures. As soon as the researcher insists on forcing the organization into abstract categories — into his terms instead of its own — he is reduced to using perceptual measures, which often distort the reality. The researcher intent on generating a direct measure of amount of control or of complexity of environment can only ask people what they believe, on seven-point scales or the like. He gets answers, all right, ready for the computer; what he does not get is any idea of what he has measured. (What does "amount of control" [or "trust"] mean anyway?) The result is sterile description, of organizations as categories of abstract variables instead of flesh-and-blood processes. And theory building becomes impossible. (Mintzberg, 1979, p. 586)

WHAT IS NECESSARY FOR VALID AND USEFUL RESEARCH ON ACTUAL THINKING AND DECIDING PROCESSES IN-USE BY EXECUTIVES

What is necessary for valid and useful research for describing and understanding actual processes by organizations and executives? Research gems are available that indicate that such methods do exist. For example, Weick (1993) summarizes Maclean's (1992) method in studying the (conjunctive) causal recipe of antecedents leading to the Mann Gulch disaster (death of 13 firefighters whose bodies were found within a few feet from safety).

Among the sources of evidence Maclean used to construct this case study were interviews, trace records, archival records, direct observation, personal experience, and mathematical models. Since Maclean did not begin to gather documents on Mann Gulch until 1976 (p. 156) and did not start to work in earnest on this project until his seventy-fourth birthday in 1977, the lapse of almost 28 years since the disaster made interviewing difficult, especially since Dodge had died of Hodgkin's disease five years after the fire (p.

106). Maclean located and interviewed both living witnesses of the blaze, Sallee and Rumsey, and persuaded both to accompany him and Laird Robinson, a guide at the smokejumper base, on a visit back to the site on July 1, 1978. Maclean also knew Dodge's wife and had talked to her informally (p. 40). ... Maclean had continuing access to two Forest Service insiders, Bud Moore and Laird Robinson (p.162). He also interviewed experts on precedents for the escape fire (p. 104) and on the nature of death by fire (p. 213). (Weick 1993, pp. 630-631)

Note that Maclean's (1992) study is classifiable as historical research, retrospective research, and a study representative of triangulation research. Weick's (1993) uses his review of Maclean's study and reports on additional disasters to advance a sensemaking theory for achieving mindfulness.

A few points are worth emphasizing here with respect to Maclean's study (1992) and Weick's (1993) interpretations of his study. First, seemingly old data can be important and highly useful for describing and understanding actual processes. Second, doing thorough analyses using mixed-methods can clarify and deepen meaning of real-life processes. Eichenwald's (1992) report on real-life thinking and doing interfirm processes of executives engaging in corruption illustrates the use of such mixed-methods in business-to-business research.

Gladwin's (1989) and Howard and Morgenroth's (1968) ethnographic-decision-tree models of executive decision making include unique and valuable steps relating to collecting data in contexts and not from 7-point surveys. Actually the literature on describing real-life processes involving executive and other people making decisions-in-contexts and reviews of such work are available (e.g., see Woodside 2010).

CONCLUSION AND SUGGESTION: GET OUT! GET IN!

Academic scholars need to create and apply solutions that do not involve using 7-point scales. Get out! Get into real-life contexts of where thinking, deciding, and actions of executives occur (cf. Arnould and Wallendorf, 1995; van Mannen 1995). That is what Mintzberg (1973) did for his Ph.D. dissertation (which became his first published book). That is what Woodside and Samuel (1981) did in their participant observation, interview, and document analysis of corporate purchase agreements. “In situ” expresses a necessary even though not sufficient condition for describing and understanding actual processes happening in real-life contexts.

The suggestion to “Get Out! Get In!” builds from Weick’s (1979, p. 261) challenge, “Complicate yourself!” and Simon’s (1990) scissors’ metaphor about thinking and the environment. Simon (1990) expresses a loose coupling between mind and world: a pair of scissors whose two blades are the characteristics of the task environment and the computational capabilities of the decision maker shapes bounded rationality. “Here, the mind must fit closely to the environment, but the two are complementary, rather than mirror images” (Todd and Gigerenzer 2011).

Paraphrasing Chris Rock, American comedian and commentator, consider the following relevant point for doing in situ research and one of the problems with executives responding to a survey with 7-point responses: When you meet someone for the first time, you are not meeting that person—you are meeting her or his representative. That is, multiple interviews with the same persons in multiple contexts (alone as well as in informal and formal group settings)

provide nuances and depth that are usually missing from written surveys or first-meeting face-to-face interviews.

Also, note that Weick's (1993) study is a theory-building exercise based on a few in-depth case studies focusing on disasters involving thinking and actions by decision-makers. He collected no data-in-contexts to write this seminal article. (Weick (1993) has close to 1,400 citations in the academic literature as of April 2011.) His analysis represents meta-evaluation and theory-building on sensemaking. Highly useful and impactful research does not need to always include surveys-from-a-distance or in situ direct observations.

While most of us may never exhibit the exceptional scholarly abilities of Weick (1979, 1993, 1995), Hall (1976), or Homans (1950, 1958, 1961) to advance theory into real-life thinking-actions in organizations—or Rong and Wilkinson's advances in folk theory-of-minds-of-executives—we need to learn from such master scholars and devote a summer or two, or a sabbatical, to get out and live within real-life business-to-business processes.

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