Accounting, Organizations and Society 43 (2015) 56–66

Contents lists available at ScienceDirect

Accounting, Organizations and Society

journal homepage: www.elsevier.com/locate/aos

From bottom line to consumers' mind: The framing effects of accounting information

Yan Tian [a], Hui Zhou [b,*]

[a] Department of Communication, University of Missouri-St. Louis, 1 University Blvd, St Louis, MO, United States
[b] Melbourne Business School, The University of Melbourne, 200 Leicester Street, Carlton, VIC, Australia

ARTICLE INFO

Article history:
Available online 4 May 2015

ABSTRACT

We investigate how accounting information and message framing jointly impact consumer choice between brand name and generic drugs using a sample representative of the U.S. adult population. We find that information about manufacturers' profit margin/cost profile in different frames predisposes consumers to develop more or less favorable attitudes towards the firms and their products. The results suggest that two important accounting constructs (profit margin and cost) are endowed with a descriptive valence that evokes affective responses in consumers' associative memory. This study adds to earlier work on the role of accounting information's connotative meaning in shaping user perceptions by providing new evidence that the descriptive valence of accounting constructs can impact consumer purchase decisions. The findings of this study also have direct implications for efforts aimed at reducing health care costs by promoting wider use of generic drugs.

Introduction

Accounting information affects not only stakeholders who have financial interests in the reporting company, but also other stakeholder groups including regulatory agencies, employees, and consumers. However, little research has examined the effects of financial reporting on stakeholder groups other than investors (Kachelmeier, Stephen, & Schadewald, 1991). In this study, we focus on consumers and investigate how accounting information and message framing jointly impact consumer judgment and choice.

Accounting research has long established that the connotative meaning of accounting information plays a role in shaping the perceptions and thoughts of those who are exposed to the information (Flamholtz & Cook, 1978; Haried, 1972, 1973; Houghton, 1987, 1988; Oliver, 1974). These findings can be better understood in light of the development in psychological research that highlights the importance of associative memory in the cognitive process. Morewedge and Kahneman (2010) concluded that the primary mechanism underlying the well-documented priming and framing effects is the automatic operations of associative memory. Associative memory is defined as "a network of long-term memory for semantic information, emotions and goals that is governed by the spread of activation, as determined by the strengths of interconnecting weights (associations)" (Morewedge & Kahneman, 2010, p. 435). The associative processes operate preconsciously in the slow-learning memory system, quickly and automatically generating intuitive and affective responses to objects (Smith & Decoster, 2000; Uleman, Saribay, & Gonzalez, 2008). Given the importance of semantic information in associative memory, the "semantic halo effect" of accounting information documented in the aforementioned studies likely arises from the automatic activation of compatible associations based on the way the

* Corresponding author. Tel.: +61 3 93498710.
E-mail address: h.zhou@mbs.edu (H. Zhou).

http://dx.doi.org/10.1016/j.aos.2015.04.003
0361-3682/

accounting constructs are encoded in the slow-learning memory system.

This study adds to earlier work on the role of accounting constructs' connotative meaning in shaping user perceptions by investigating the automatic affective reactions of consumers to information about the manufacturers' profit margin/cost profile presented in different frames. We posit that profit margin (cost) has a negative (positive) descriptive valence, and thus information about the manufacturers' relative profit margins (costs) will evoke negative (positive) affective responses. Drawing on direction of comparison of asymmetries documented in previous research (e.g., Bowdle & Medin, 2001; Roese, Sherman, & Hur, 1998; Wanke, Schwarz, & Noelle-Neumann, 1995), we further posit that comparison framing (i.e., which firm is placed as the subject vs. referent in a comparison of two firms) can affect consumer attitudes, as consumers will associate the affective responses with the subject firm but not the referent firm. This implies that consumers will be unfavorably predisposed towards the subject firm relative to the referent firm when a comparison of profit margins is presented. Conversely, consumers will be favorably predisposed towards the subject firm relative to the referent firm when a comparison of costs is presented. The relatively favorable (unfavorable) image of a firm, in turn, will increase (decrease) consumer intention to choose that firm's products over those of its competitor.

We use consumer choice between brand name and generic drugs as the setting to test our propositions. Pharmaceuticals provide a suitable setting to investigate our research question for two reasons. First, prescription prices, as well as manufacturers' profit margins and costs, vary significantly between brand name and generic drugs.[1] Bhat (2005) reports that the average prescription price of a brand name drug is $65.29 compared to only $19.33 for a generic drug in 2000, and net profit margin before taxes of ten brand name pharmaceutical manufacturers was 23.6% compared to only 17.2% for ten generic pharmaceutical manufacturers. Second, there is widespread belief that consumers view the price difference between brand name and generic drugs as a signal of difference in quality, despite the fact that generic drugs have to meet the same rigid standards as brand name drugs in the FDA approval process. For example, a 2008 New York Times editorial titled "Generic Drug Resistance" highlighted the difficulty in persuading more patients to use generic drugs, even in the presence of substantial evidence confirming the effectiveness and safety of generics. This is consistent with the phenomenon of price reliance documented in consumer research where prices are used as quality indicators, especially in purchase decisions of "credence goods" such as pharmaceuticals (Zeithaml, 1988).

In addition to providing a setting for testing the joint effect of accounting information and message framing on consumers, consumer choice between generic and brand name medications is an important policy issue. Policy makers and insurers have long promoted wider use of generic drugs in place of their more expensive brand name alternatives as an effective mechanism to contain prescription drug spending. Using 1997–2000 Medical Expenditure Panel data, Haas, Phillips, Gerstenberger, and Seger (2005) estimated that broad generic substitution of outpatient prescription drugs would result in a national savings of $8.8 billion in the United States each year, approximately 11% of the annual drug expenditures in the United States during 1997 to 2000. With the rapid increase in prescription drug expenditures during the last decade, the absolute savings from substituting generic drugs for brand name drugs will be even more substantial going forward. The magnitude of these figures underlies the efforts of policy makers and insurers to increase the use of generic drugs. A significant number of such programs are specifically targeted at improving consumer perceptions of generic drugs because the perceptions of patients play an important role in deciding which medications are prescribed to them (Shrank et al., 2009).

We have designed an experiment to investigate whether exposing consumers to information on manufacturers' profit margin/cost profile can evoke affective responses that affect consumer attitudes towards the firms and their products. The participants are a sample representative of the U.S. adult population. To identify the affective responses to profit margin (cost), we vary the comparison framing in the statements that compare the profit margin (cost) of brand name and generic drug manufacturers by manipulating the direction of comparisons. For simplicity in reference, profit margin (cost) disclosures stating that brand name drug manufacturers have higher profit margin (cost) than generic drug manufacturers are referred to as the *brand name as subject* condition. Conversely, profit margin (cost) disclosures stating that generic drug manufacturers have lower profit margin (cost) than brand name drug manufacturers are referred to as the *generic as subject* condition.

Consistent with our predictions, the results show that disclosures about the manufacturers' profit margin/cost profile and the frame of disclosures have interactive effects on consumer perceptions and purchase intentions. Specifically, when information about relative profit margin is presented, the *brand name as subject* frame is associated with a more favorable image of generic drug manufacturers than the *generic as subject* frame. In contrast, when information about relative cost levels is presented, the *generic as subject* frame is associated with a more favorable image of generic drug manufacturers than the *brand name as subject* frame. Finally, the image of generic drug manufacturers mediates the effect of the disclosures on consumer intentions to communicate about and purchase generic drugs.

This study contributes to research that examines the cognitive mechanisms underlying the response to accounting information and extends the literature on the role of accounting information's connotative meaning in shaping user perceptions. We provide evidence that encountering information about the manufacturers' profit margin/cost profile in different frames leads to selective attention and cognitive search mechanisms that result in valence-consistent knowledge being accessed in consumers' associative

[1] The research and development costs incurred in developing new drugs are very high. This is behind the rationale for granting market exclusivity (in the form of patents) to brand name drug manufacturers in order to compensate for the drug development costs. It is only possible for a brand name drug to have a generic counterpart after the patent on the drug expires, by which time the drug development costs have supposedly been recovered.