Management Accounting Research 31 (2016) 63–74

Contents lists available at ScienceDirect

Management Accounting Research

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

Realising the richness of psychology theory in contingency-based management accounting research

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ARTICLE INFO

Article history:
Available online 21 December 2015

Keywords:
Management accounting
Contingency theory
Psychology

ABSTRACT

Psychology theory has been employed extensively in contingency-based management accounting research, but there has been little consideration of how it could be utilised more fruitfully. After analysing prior research, particularly studies published in *Management Accounting Research*, I identify and discuss five ways to develop the use of psychology theory in contingency-based management accounting research: (1) stronger linkages between individual and organisational-level studies, (2) a more dynamic perspective on relations between management accounting practices and psychological processes, (3) greater use of field studies in contrast to surveys, (4) examination of the interdependencies between management accounting practices and other types of information, and (5) a greater focus on the role of emotions.

1. Introduction

Contingency-based management accounting research has a long and distinguished history of providing insights into the role and functioning of management accounting practices in organisations. Whilst its shortcomings have been the subject of considerable debate (e.g. Otley, 1980; Chapman, 1997; Hartmann and Moers, 1999; Gerdin and Greve, 2004); it remains an important and central field of inquiry in management accounting research. For example, Chenhall's (2003) review of contingency research in management accounting and control still remains one of the most downloaded articles in *Accounting, Organizations and Society*, 13 years after its initial publication.

I use the term 'contingency-based' research rather than 'contingency theory' to distinguish between a contingency approach to management accounting research and the precise theory(ies) mobilised in a particular study. That is, a contingency orientation is an approach to management accounting research that seeks to understand how the operation and effects of management accounting practices are not 'universal'—they depend on the different contexts within which those practices operate.[1] Within this approach, particular theory(ies) can be used to provide predictions and/or explanations for expected and/or observed relationships, such as theories from economics, psychology or sociology, or a combination thereof (see Chenhall, 2007).

My focus is on the use of psychology theory in contingency-based management accounting research, which has long been used to study management accounting practices (Argyris, 1953; Birnberg et al., 2007). Psychology theory is focused on explaining and predicting behaviour by examining primarily individual rather than organizational and social behaviour, and subjective rather than objective phenomena (Birnberg at al., 2007). As such, psychology theory can be used within contingency based management accounting research in order to understand and explain the operation and effects of management accounting practices through consideration of how they influence *individuals*' mental states and behaviours. To do so, studies can draw on a variety of psychology theories from cognitive, motivational and social psychology (Birnberg et al., 2007). For example, Franco-Santos et al. (2012) identify several psychology theories used to understand the effects of contemporary performance measurement systems, such as information processing, goal setting and justice theories.

My first aim is to analyse the ways in which psychology theory has been employed in prior contingency-based management accounting research, particularly its (as will be argued, often implicit) role in developing predictions and/or explanations for the effects of management accounting practices on individual and/or organisational outcomes. To fulfil this aim I draw selectively on a variety of studies to illustrate the role of psychology theory in

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[1] See Gerdin and Greve (2004) for an excellent review of the different forms of fit in contingency research, and Gerdin and Greve (2008), Grabner and Moers (2013), and Burkert et al. (2014) for a discussion of different forms of fit and appropriate statistical methods.

http://dx.doi.org/10.1016/j.mar.2015.11.002
1044-5005/

contingency-based research, particularly those published in *Management Accounting Research*.[2] I focus particular attention on the classical budgeting studies, such as Argyris (1953) and Hopwood (1973), which provide compelling (but under explored) insights into the richness of psychology theory for contingency-based management accounting research.[3] I analyse studies conducted at the individual level of analysis (Section 2), followed by studies at the organizational level (Section 3). This separation is for ease of exposition, but it also reflects the focus in existing research on conducting studies at the individual or organizational level of analysis. This analysis is important because although psychology theory has been employed extensively in contingency-based management accounting research, there has been little consideration of how it could be utilised more fruitfully. A focus on the use of psychology theory also complements studies examining the use of specific theories and ways of theorising in contingency research in management accounting more broadly (e.g. Chapman, 1997; Hartmann, 2000; Gerdin and Greve, 2004).

Drawing on this analysis of prior studies, my second aim is to identify and discuss five ways to develop the use of psychology theory in contingency-based management accounting research. I first focus on developing stronger linkages between individual and organisational-level studies (Section 4). This includes the need for organisational level studies to be more explicit about the psychological processes that are expected to generate the organisational-level effects of management accounting practices, the importance of examining whether and how individual-level effects of management accounting translate into effects at the organisational level, and a stronger use of multi-level studies. Section 5 advocates a more dynamic perspective on relations between management accounting practices and psychological processes. This would include a stronger focus on the abilities, judgements, and motivations of individuals who take (or not) actions in order to achieve an appropriate fit between the organisational context and management accounting practices. In contrast to the predominate use of surveys, in Section 6, I propose a greater use of field studies in contingency-based management accounting research because they can provide more scope to analyse a broader range of psychological processes (rather than only psychological states). Section 7 considers the importance of examining the wider information environment within which management accounting practices operate. This is particularly pertinent where interdependencies between a particular management accounting practice and other management accounting practices and/or other types of information can interact to influence individual's psychological responses. The final approach I outline concerns expanding the range of psychology theories used in understanding the operation of management accounting practices in organisations (Section 8). Specifically, I argue for a greater focus on the role of emotions, which would include considering how management accounting practices can create and reinforce emotional responses, and how existing emotions and feelings of individuals in organisations can be expressed through management accounting practices. The final section, Section 9, concludes the paper.

2. Understanding the effects of management accounting practices at the individual level of analysis

Studies have sought to understand and explain the individual-level effects of management accounting practices. This has involved an evolution from examining direct links between management accounting practice(s) and individual-level effects to analysis of contingency relationships, such as how direct links can occur in some contexts but not others, and/or will occur to a different extent or in indirect ways through particular psychological mechanisms. This typically involves the development of theoretical models involving intervening and/or moderator variables. In an intervening variable model, the management accounting variable affects a psychological variable, and the psychological variable in turn affects the individual-level outcome (Luft and Shields, 2000). For example, participative budgeting affects role ambiguity, and role ambiguity in turn affects job performance (Chenhall and Brownell, 1988). In a moderator variable model, how much the management accounting variable affects the individual-level outcome is conditional on the value of the psychological variable (Luft and Shields, 2000). For example, how participative budgeting influences managerial performance is conditional on a manager's perceived locus of control (such as whether a manager believes his/her destiny is controlled by luck or the manager's own actions) (Brownell, 1981).

Argyris's (1953; 97) pioneering study addressed fundamental questions concerning the role of budgets in organisations, such as 'what are the effects of budgets on the human relationships in the organization?'. As noted by Birnberg et al. (2007), Argyris (1953) is the first study to draw on psychology theory to study management accounting, particularly concepts from human relations and group dynamics. Findings of his study drawn from interviews at three production plants focused on how budgets related to employees' motivation and social relations, particularly focused on pressure, stress and tension created by the use of budgets in performance evaluation processes. Psychology theory was used to understand and explain the reactions of employees to the budgeting process, such as the creation of groups to relieve pressure, a range of behaviours in response to failure to achieve a budget target, and all manner of conflicts between employees and between employees and supervisors. Other early research on budgeting also drew on psychology theory (specifically, level of aspiration theory), such as Stedry's (1960) examination of how budget goal difficulty (easy, medium or difficult goals) and the timing of budget goals (whether the individual receives the budget goal before or after setting their personal aspiration level) interacted to influence performance.

Hopwood's (1973, see also 1972, 1974) seminal work also drew strongly on psychology theory, particularly the use of role theory, to examine the effects of different styles of use of accounting information in the performance evaluation of cost centre managers. Drawing on interview and survey data, he found that a manager who perceives he is evaluated under a budget constrained style (in contrast to a profit conscious or non-accounting style) will report higher job related tensions, have poorer relations with superiors and peers, and be more likely to falsify accounting records and engage in dysfunctional decision making.[4] As noted by Birnberg et al. (2007), many later studies in management accounting drew on role theory to examine how role ambiguity and role conflict

[2] For reviews and discussion of contingency research in management accounting more broadly, see, for example, Chapman (1997), Hartmann (2000), Chenhall (2003), and Otley (2015). For excellent overviews of the use of psychology theory in management accounting research, see Birnberg et al. (2007) and Luft and Shields (2009).

[3] This points to the continued richness of pioneering studies and the opportunities for current research that can be created from revisiting them. For similar approaches, see Chapman (1997), who re-examined the classic early contingency studies, and Hall (2010), who re-examined studies of accounting information in managerial work.

[4] Hopwood (1973; 19) defined a budget-constrained style as performance evaluation primarily based on the manager's ability to meet short-term budgets, which is stressed at the expense of other values and important criteria, whereby a manager will receive an unfavourable evaluation if his costs exceed the budgeted costs regardless of other considerations. A profit conscious style was defined as evaluation based on a manager's ability to increase the general effectiveness of his operations in relation to the longer-term purposes of the organization. The accounting reports are useful but are used with some care in a rather flexible manner.