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# Strategizing open innovation: How middle managers work with performance indicators

Jan A. Pfister[a,*], Sarah L. Jack[b,c], Solomon N. Darwin[d]

[a] Turku School of Economics, University of Turku, Rehtorinpellonkatu 3, 20500 Turku, Finland
[b] Lancaster University Management School, Lancaster University, Bailrigg, Lancaster LA1 4YX, United Kingdom
[c] Stockholm School of Economics, Box 6501, SE-133 83 Stockholm, Sweden
[d] Haas School of Business, University of California at Berkeley, 2220 Piedmont Avenue, Berkeley, CA 94720-1900, USA

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ABSTRACT

Open innovation (OI) has become an established business practice followed by many organizations and industries. This paper extends understanding about how middle managers work with performance indicators to strategize OI by taking a bottom-up perspective in the organization. It draws on interviews carried out with eighteen (upper-level) middle managers from different global and internationally recognised organizations. Through an abductive study, we compare how these middle managers reason about their work with performance indicators to mobilise top managers towards an OI strategy. Findings show that the situational nuances middle managers find themselves in, such as the extent of strategic support for an OI strategy by top managers and the degree to which OI practices are adopted, plays a critical role in influencing how they work with performance indicators. According to these situational nuances, we distinguish different OI contexts which affect how middle managers reason about their work with performance indicators. We label the different types of reasoning as *abstaining, initiating, expanding, restructuring,* and *retaining*.

## 1. Introduction

The accounting literature has highlighted the critical role performance indicators play in the strategic work within organizations (Bhimani & Langfield-Smith, 2007; Chapman, 2005; Chua, 2007). However, to date understanding how this happens has largely been driven by a very top-down perspective. Unfortunately, such an approach neglects a range of influential factors. First, it largely ignores the role and contribution others inside or outside an organization might play in strategizing (Carlsson-Wall, Kraus, & Lind, 2015; Jørgensen & Messner, 2010; Skærbæk & Tryggestad, 2010). Second, it tends to overlook the findings of others which suggest that in the strategizing process, top managers might actually be better integrating bottom-up information from lower levels in the organization (Bisbe & Otley, 2004; Henri, 2006; Simons, 1995). Third, a top down perspective also neglects the role of the middle manager and how they might work with performance indicators to inform strategizing (Burgelman, 1983; Currie & Proctor, 2005; Wooldridge, Schmid, & Floyd, 2008). Given the role middle managers[1] play in organizations, we see this oversight as somewhat surprising.

Through this abductive study (Dubois & Gadde, 2002; Lukka & Modell, 2010), we look to address this oversight by extending understanding about how middle managers might work with performance indicators to strategize open innovation (OI) (Chesbrough, 2003, 2006). The notion of OI relates to an open strategy (Almirall & Casadesus-Masanell, 2010; Chesbrough & Appleyard, 2007; Teece, 2010) by which organizations engage in economic exchange within and across its boundaries to create and capture value from technology, and thereby intend to gain market opportunities and competitive advantage.[2]

The starting point for our investigation was a surprising observation (Alvesson & Kärreman, 2007; Alvesson & Sandberg, 2011) at practitioner events, known as the Berkeley Innovation Forum (BIF), where (upper-level) middle managers from different global and

* Corresponding author.
*E-mail addresses:* jan.pfister@utu.fi (J.A. Pfister), s.l.jack@lancaster.ac.uk (S.L. Jack), darwin@haas.berkeley.edu (S.N. Darwin).

[1] Middle managers are defined here as being hierarchically positioned below top managers and higher than first-level supervisors. However, the *defining feature* of middle managers is its access to top managers while simultaneously being closely involved with and knowledgeable about operations (see for example Wooldridge et al., 2008). Middle managers can be relatively highly ranked in the organizational hierarchy and are sometimes described as semi-executives. Their titles encompass varying degrees of Directors and Vice Presidents depending on the specific hierarchical design of the organization and country (e.g. European vs. American companies). By contrast, top managers (members of the executive team) typically hold titles such as Chief Executive Officer, Chief Financial Officer, Chief Operating Officer or General Counsel.

[2] The practice of OI appears to be accepted by many major global organizations, as evidenced through the membership of the Berkeley Innovation Forum (BIF). See http://corporateinnovation.berkeley.edu/executives/berkeley-innovation-forum/ for an overview.

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internationally recognised companies (including Hewlett Packard, Johnson & Johnson, Nestlé, SAP, Shell, and United Health Care) gather to exchange their experience on OI. Those middle managers shared a concern for developing performance indicators for their strategic work with OI practices. However, to our surprise, their reasoning about it differed widely. Following the lead of this observation, we conducted semi-structured interviews with eighteen of those middle managers. All of them were responsible for the probing and/or managing of OI practices in their organizations. Moving iteratively back and forth between theory and empirics (Dubois & Gadde, 2002), we realised that the shared reasoning of middle managers related to their occupational interest in strategizing OI in their organization, yet the differences among them related to the nuances of their strategic contexts. In this study, we therefore explore the following research question: *How do middle managers work with performance indicators to strategize OI?*

This study contributes to the accounting literature in the following ways. First, we contribute to accounting literature that explores the active role of performance indicators in shaping organizational life (e.g. Gerdin, Messner, & Mouritsen, 2014). In doing so we draw on and extend the work of Catasús, Ersson, Gröjer, and Wallentin (2007) who argue that the existence of performance indicators alone does not necessarily trigger action but can support the mobilising of a specific organizational direction. We show that middle managers' priorities about performance indicators depend on what they need to do to mobilise top managers. We find that performance indicators can lead to action but only if what is measured is also mobilised in context and that this influences the ways in which middle managers inform top managers through performance indicators. Linked to this, different contexts are identified through our findings which relate to 1) the extent of strategic support and 2) the extent of practice adoption. Depending on these conditions, we find that middle managers reasoned differently about how they work with performance indicators to inform top managers in strategizing OI. We label their reasoning as *abstaining, initiating, expanding, restructuring,* and *retaining.*

Second, we add to the literature on accounting and strategizing (e.g. Chapman, 2005; Chua, 2007) by adopting the notion of OI (Chesbrough & Appleyard, 2007; Whittington, Cailluet, & Yakis-Douglas, 2011) and shedding light on the reasoning of middle managers about their work with performance indicators in strategizing OI. While previous studies have looked at actors other than top managers (Carlsson-Wall et al., 2015; Jørgensen & Messner, 2010; Skærbæk & Tryggestad, 2010), we add to these findings by analysing how the reasoning of middle managers might frame an active role of performance indicators in strategizing, and demonstrate conditions under which middle managers seek to develop performance indicators that provide hard facts to top managers about the strategic commensurability of OI. Moreover, our findings also demonstrate the limitations of middle managers in informing strategy through performance indicators. We therefore present mixed evidence regarding the extent to which middle managers use performance indicators to inform strategy bottom-up, highlighting both their possibilities but also constraints.

## 2. Literature and conceptual background

### 2.1. Performance indicators, strategizing, and middle management involvement

Performance indicators facilitate information to evaluate, implement, and monitor the effective and efficient achievement of strategic and operational objectives (Chenhall, 2005; Ittner, Larcker, & Randall, 2003; Kaplan & Norton, 1992). Neely, Gregory, and Platts (1995) explain that performance indicators[3] relate to 1) effectiveness when they quantify the extent to which actions satisfy a specific strategic or operational objective and 2) efficiency if they quantify how economically an organization's resources are used to achieve those objectives.

In practice, the relevance of performance indicator design is further underlined by adages such as "what you measure is what you get" or "what gets measured gets managed". These statements assume a direct link between performance indicators and actions, thereby highlighting the effects of the measurement choices. Nonetheless, prior research by Catasús et al. (2007) investigating this link demonstrates that the contents of performance indicators are primarily associated with action – if what is indicated by the performance indicators is also mobilised in the organization. Catasús et al. (2007, p. 509) introduced the term mobilising "to emphasise that there is an arena where the organization not only seeks attention but also finds resources and a sense of direction". For Catasús et al. (2007), mobilising comprises "the act of summoning attention, resources and strategies for acting" (2007, p. 509). In this vein, performance indicators are not directly a means to activate the organization, but a means to direct the attention of actors which might ultimately lead to action. This argumentation corresponds with Mouritsen, Hansen, and Hansen (2009) who argue that accounting calculations are not primarily representations of specific actions but rather translate their impact and strategic significance for the organization. As such, performance indicators are not passive representations of what happens in the organization but can have an active role of the organization's constitution (Gerdin et al., 2014; Mellemvik, Monsen, & Olson, 1988). Taking this viewpoint, we explore how middle managers work with performance indicators to actively inform strategy bottom-up.

Performance indicators are perceived to provide the means for top managers to diagnose the market, communicate strategy and to compare outcomes with plans (Anthony, 1965; Franco-Santos, Lucianetti, & Bourne, 2012; Malina & Selto, 2001). A large amount of mainstream accounting research builds on this top-down assumption and examines, for example, the relationship of types of financial and non-financial performance indicators with differentiation, low-cost, and mixed strategies (e.g. Chenhall & Langfield-Smith, 1998; Decker, Groot, & Schoute, 2013; Van der Stede, Chow, & Lin, 2006), the cause-and-effect relationships among performance indicators and the outcomes of strategic performance indicators on organizational performance (e.g. Chenhall, 2005; Ittner et al., 2003; Malina, Norreklit, & Selto, 2007).

In contrast to the above research, Chapman (2005) adopted the concept of 'strategizing' (e.g. Jarzabkowski, Balogun, & Seidl, 2007; Whittington, 2003, 2004) in interpretive accounting research, calling for investigations into how accounting and strategy interrelate and what role accounting plays when strategies emerge bottom-up and from the periphery of an organization (see also Chua, 2007). Several studies show how the information provided by performance indicators are viable not only for strategy implementation but also its formulation (Ahrens & Chapman, 2005; Hansen & Mouritsen, 2005; Modell, 2012). For instance Skærbæk and Tryggestad (2010, p. 121), who explore the role of accounting devices in the active formulation of strategy, reflect that they did not find

> support for the assumption that the key strategic actor and its' rationale are confined to the CEO or the top management team. Rather, the location and rationale of the key strategic actor seems to transgress such formal (hierarchical) boundaries.

However, they do point out that

> accounting devices become strategic in a role of (re)formulating strategic ends and rationales, rather than being limited to implementation. (Skærbæk & Tryggestad, 2010, p. 121)

Similarly, Carlsson-Wall et al. (2015) and Jørgensen and Messner (2010) report in their case studies that preparers and/or recipients of strategic accounting information involve middle managers and

[3] The accounting literature applies the terms performance indicators and performance measures interchangeably. We use the term 'indicator' to denote performance representations that 'indicate' performance dimensions rather than necessarily always providing a sharp 'measure' of specific performance dimensions.