Industrial Marketing Management xxx (2015) xxx–xxx

Contents lists available at ScienceDirect

Industrial Marketing Management

Inside-out and outside-in orientations: A meta-analysis of orientation's effects on innovation and firm performance

Saadat Saeed [a,*], Shumaila Yousafzai [b], Angela Paladino [c], Luigi M. De Luca [b]

[a] Management Science and Entrepreneurship Group, Essex Business School, University of Essex, Southend-on-Sea, UK
[b] Cardiff Business School, Cardiff University, UK
[c] Department of Management & Marketing, The University of Melbourne, Australia

ARTICLE INFO

Article history:
Received 19 February 2013
Received in revised form 7 April 2014
Accepted 2 October 2014
Available online xxxx

Keywords:
Inside-out orientation
Outside-in orientation
Innovation performance
Firm performance
Meta-analysis

ABSTRACT

The inside-out and outside-in orientations place differing levels of emphasis on internal versus external resources and capabilities as sources of competitive advantage. While the inside-out orientation primarily considers organizational resources, followed by competitors and customers (implicitly), the outside-in orientation appears to reverse the order by first examining customers and competitors and then the degree to which the firm responds to them, implicitly addressing organizational resources. Existing empirical evidence does not clarify the comparative effects of inside-out and out-side in orientations on innovation performance. This paper draws on 232 independent studies ($N = 38{,}051$) analyzed systematically through a quantitative meta-analytic synthesis in order to develop a detailed contextualized elaboration of the relationships between the inside-out and outside-in orientations and innovation performance. Going beyond the direct effects, we also extend the literature by investigating the moderating effects of industry type (high-tech vs. low-tech), economic development (developed vs. developing countries), and cultural context (collectivist vs. individualist cultures). Our findings shed light on the relative value of inside-out and outside-in orientation for innovation performance, the direct and indirect effects of the two orientations on firm performance, and the conditions under which the effectiveness of each is enhanced.

1. Introduction

Innovation is a process through which organizations change in response to or in anticipation of an increasingly competitive and dynamic global business environment (e.g., Pitt & Clarke, 1999). Innovation combines the organization's skills and knowledge with the needs of customers and users outside or inside the organization in a novel way (e.g., Renko, Carsrud, & Brännback, 2009). Firms with the capacity to innovate can respond to environmental challenges faster and better than non-innovative firms can (e.g., Brown & Eisenhard, 1995). Following Crossan and Apaydin (2010: p. 1155), we define innovation as the “production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production; and establishment of new management systems.” Innovation is widely regarded as critical for the economic viability of firms and nations and is one of the key drivers of long-term success and competitive advantage (Baker & Sinkula, 2002; Darroch & McNaugton, 2002; Lyon & Ferrier, 2002). Recent meta-analytical studies have provided evidence of a positive relationship between a firm's innovation performance and its overall performance (e.g., Calantone, Harmancioglu, & Droge, 2010; Rosenbusch, Brinckmann, & Bausch, 2011; Rubera & Kirca, 2012). However, extant research offers disconnected picture of the relative value of internal and external determinants of firm-level innovation performance (see, e.g., Makhija, 2003; Paladino, 2007, 2008).

Innovation performance may be credited to the firm's internal and external knowledge, resources, and capabilities (Powell, 1996). In particular, research has implicitly identified two complementary strategic approaches, or orientations, to the use of firm resources for innovation performance (Day, 2011). The first approach, the inside-out orientation, focuses on firm-specific internal resources and capabilities (Barney, 1991; Day, 2011; Miller, Eisenstat, & Foote, 2002). The success of this orientation is based on a firm's ability to leverage and deploy its existing knowledge and capabilities through inside-out processes, that is, processes that begin with the firm and look outward (Day, 2011; Kleinschmidt, de Brentani, & Salomo, 2010; Paladino, 2007). The second approach, the outside-in orientation, centers on knowledge and resources that reside outside the firm—such as customers, suppliers, competitors, and end-product market positions—as the linchpins of innovation (Atuahene-Gima, 1996; Frambach, Prabhu, & Verhallen, 2003; Paladino, 2007). From this perspective, firms integrate knowledge and

* Corresponding author. Tel.: +44 1702 328386.
E-mail addresses: ssaeeda@essex.ac.uk (S. Saeed), yousafzais@Cardiff.ac.uk (S. Yousafzai), a.paladino@unimelb.edu.au (A. Paladino), delucal@cardiff.ac.uk (L.M. De Luca).

http://dx.doi.org/10.1016/j.indmarman.2015.02.037
0019-8501/© 2015 Elsevier Inc. All rights reserved.

capabilities from external sources through an outside-in process in developing successful innovations (e.g., Kahn, 2001; Kohli & Jaworski, 1990).

While the inside-out and outside-in approaches have been associated with distinct strategic orientations (e.g., Paladino, 2007), there is little empirical evidence about their relative impact on innovation performance (e.g., Makhija, 2003; Paladino, 2008, 2009; Roquebert, Phillips, & Westfall, 1996). Consequently, an important question remains concerning the relative importance of inside-out and outside-in orientations on improving innovation and form performance (Henderson & Mitchell, 1997; Makhija, 2003). It is also unclear whether the effects of these orientations on overall performance are exclusively indirect, that is, whether their effects come through their positive impact on innovation performance, or whether there are also direct effects (see, e.g., Paladino, 2007, 2009).

The present research examines 232 independent studies systematically through a quantitative meta-analytic synthesis and develops a detailed and contextualized elaboration of the relationship between the inside-out and outside-in orientations with innovation performance at the firm level. For the first time our study offers a comprehensive set of individual manifestations of inside-out and outside-in orientations in one study, thereby clarifying the comparative effects of outside-in and inside-out orientations on firms' innovation performance. In pursing this objective, we generate four distinct contributions.

First, we address the "untangling" problem Henderson and Mitchell (1997) point out and that a few empirical studies (e.g., Makhija, 2003; Paladino, 2007, 2008) address. In fact, since a firm's internal resources and capabilities and its external market position are conceptually entangled (Henderson & Mitchell, 1997; McGahan & Porter, 1997), our study helps to clarify their interdependence in fostering innovation. Second, we provide insight, in addition to the findings of Calantone et al.'s (2010) extensive meta-analysis, by extending the database of studies (from 64 studies; $N = 12{,}921$ to 232 studies; $N = 38{,}051$) and by examining drivers of firm innovation performance through the lenses of inside-out/outside-in (Day, 1994, 2011; Paladino, 2008). Third, we contribute to the innovation literature by using an integrative framework to examine the antecedents and consequences of innovation performance simultaneously with the comparative effects of inside-out and outside-in orientations on innovation performance. Fourth, this study contributes to the research on industry- and country-level contingencies in the relationship between strategic orientations and innovation performance. Specifically, we extend the literature by investigating the moderating effects of economic development (developed vs. developing countries), cultural context (collectivist vs. individualist cultures), and industries' technological intensity (high-tech vs. low-tech) on the impact of inside-out orientation and outside-in orientation on innovation performance.

The paper is organized as follows. First, we present a theoretical overview and develop the key hypotheses of the direct and moderating effects as proposed in our research framework depicted in Fig. 1. Next, the methodology is described and results are discussed. Finally, we present the implications of our findings for research and management and propose avenues for future research.

2. Theoretical background and hypotheses

2.1. The inside-out orientation

Rooted in economics and strategic management literature, the inside-out orientation is an internally oriented strategic posture, the focus of which lies on how a firm achieves superior performance by developing, possessing, capitalizing on, and deploying strategic firm-specific resources that are valuable, scarce, inimitable, and non-substitutable (Barney, 1991; Day, 2011; Miller et al., 2002). The firm uses its internal resource base to exploit opportunities and/or to neutralize threats that arise in the external environment (Paladino, 2009). These resources are often idiosyncratic and embodied in the form of tacit knowledge within the social fabric of the firm (Auh & Menguc, 2009; Makhija, 2003). Research has frequently used the inside-out perspective to examine the function of resources in creating competitive advantage through innovation performance (e.g., Ahuja & Katila, 2004).

A dynamic strain of the inside-out orientation that draws on evolutionary economics is the theory of organizational dynamic capabilities (ODCs: Day, 2011; Newbert, 2007; Zott, 2003). ODCs, defined as the processes through which firms integrate, reconfigure, renew, and recreate resources and capabilities over time (Teece, Pisano, & Shuen, 1997), play a key role in enhancing an organization's innovation performance (Brockmand & Morgan, 2003; Eisenhardt & Martin, 2000; Helfat et al., 2007). Through a systematic review of organizational innovation literature, Crossan and Apaydin (2010) propose that ODCs reside in five types of managerial levers: (1) organizational mission and explicit innovation strategy (2) resource allocation (e.g., absolute and relative R&D intensity, commitment to differentiated funding, annual turnover of resources, and slack resources); (3) structure and systems (e.g., organizational complexity and administrative intensity, formalization, specialization, and centralization; fit among organizational design and type of innovation, and number of employees); (4) knowledge management systems (e.g., formal idea-generation tools, external links with universities, the quality of these links, formal information-gathering, and customer contact time and frequency); and (5) organizational culture (e.g., a clearly stated, attainable, and valuable shared vision; promoting autonomy; calculated risk-taking; motivation; and the attractiveness of the organizational climate).

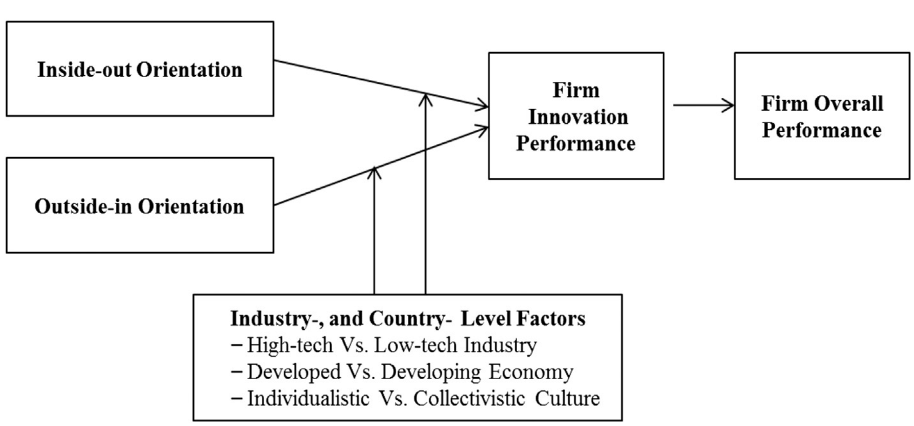

Fig. 1. Research framework.

Please cite this article as: Saeed, S., et al., Inside-out and outside-in orientations: A meta-analysis of orientation's effects on innovation and firm performance, *Industrial Marketing Management* (2015), http://dx.doi.org/10.1016/j.indmarman.2015.02.037