



Understanding the links between technological opportunism, marketing emphasis and firm performance: Implications for B2B

Matthew Sarkees*

Penn State University, School of Graduate Professional Studies, 30 East Swedesford Road, Malvern, PA 19355, United States

ARTICLE INFO

Article history:

Received 2 October 2009
Received in revised form 20 August 2010
Accepted 23 August 2010
Available online 28 September 2010

Keywords:

Technological opportunism
Marketing
Capabilities
Performance

ABSTRACT

The capability of firms to sense and respond to changes in technologies, called technological opportunism, is of growing importance to managers as a source of competitive advantage. However, exactly how technological opportunism impacts firm performance is still not clearly understood. Furthermore, the role of marketing in this relationship, if any, has yet to be examined. Understanding this relationship is critical for marketing managers not only for determining strategic investments of resources but also for demonstrating marketing return on activities. This paper explores the links between technological opportunism and firm performance. The results show that technological opportunism has a strong positive impact on key measures of performance such as firm sales, profits and market value. Importantly, marketing emphasis is the mechanism through which the technological opportunism–performance relationship is achieved. Finally, the impact of marketing emphasis on B2B firms is different than that for B2C firms, highlighting the importance of these activities for B2B marketing managers.

© 2010 Elsevier Inc. All rights reserved.

Thriving, and even surviving, is becoming more difficult for firms in today's increasingly global, fast-paced, and economically treacherous business environment. The pace of change is daunting and many executives feel that their companies are falling further behind (IBM Global CEO Study, 2010). In particular, managers seem to be faced with an increasing number of technology disruptions in their businesses that can threaten competitive advantage (e.g., Benner & Tushman 2003; Chandy & Tellis, 1998; Christensen, 1998). This rapid advance of technology can place firms on the defensive, which can create reactionary decision-making that leads to investments that may not be correct for either the short-or long-term. As a result, firms can fall even further behind competitors. How can firms be more proactive with respect to technology?

One approach is for firms to become technologically opportunistic. Firms that are technologically opportunistic have a fundamental orientation toward sensing and responding to new technologies (Srinivasan, Lilien, & Rangaswamy, 2002). In this context, technological opportunism is a positive orientation that enables a firm to better compete in its markets. *Sensing* refers to how a firm develops an understanding of new technologies, keeping in mind that this knowledge is drawn from both inside and outside of the firm (Srinivasan et al., 2002). Firms that are strong in the sensing capability keep close contact across business functions as well as with external stakeholders. *Responding* is the firm's willingness and ability to take action in the face of technological change. On many occasions, this involves challenging

the prevailing industry view such as Federal Express, Google, TiVO, and Research in Motion, among others, have done (Wind, 2009).

Despite its potential implications for business, little has been done to expand our basic knowledge of technological opportunism and its impact (e.g., Mohr & Shoostari, 2003). One very important unresolved question is whether technological opportunism benefits firm performance (Srinivasan et al., 2002). Opportunism implies that firms are taking advantage of resources, assets, capabilities or relationships, among other things, that provide competitive advantage and thus enhanced performance. Alternatively, the nature of sensing and responding to technological change suggests an inherent degree of risk that may be detrimental to dimensions of performance. For example, firms may have high-cost research and development failures. Firms can also develop products that are too advanced for customer acceptance, which results in disappointing sales and profits (Dhebar, 1996). The Apple Newton, an advanced personal digital assistant concept from the late 1980s (pre-cursor to the Palm Pilot and Blackberry), fits the latter category. This study begins to fill in this gap in understanding of how technological opportunism impacts different dimensions of financial performance such as sales, profits and market value. This finer-grained view of performance helps to provide a more complete picture of its impact on the firm (e.g., Walker & Ruekert, 1987).

A second key question is whether certain firm mechanisms are in place through which the relationship between technological opportunism and performance occurs (Srinivasan, 2008). Understanding these mechanisms provides managers with a more detailed picture of how technological opportunism may benefit firm performance. Specifically, this study focuses how a firm's emphasis on marketing mediates the relationship between technological opportunism and firm performance.

* Tel.: +1 610 648 3322; fax: +1 610 725 5224.
E-mail address: mes45@psu.edu.

Marketing is a key link between internal and external stakeholders (Day, 1994; Moorman & Rust, 1999; Srivastava, Shervani, & Fahey, 1999). This suggests that the success of technological opportunism in delivering enhanced performance is dependent upon marketing's emphasis on its key resources, assets and capabilities with internal and external stakeholders. The value of marketing as an investment rather than an expense item is an ongoing debate (e.g., Day, 1994; Marketing Science Institute, 2008; Srivastava, Shervani, & Fahey, 1998). Furthermore, the manner in which marketing emphasizes its key resources, assets and capabilities is typically not well understood by managers (Vorhies & Morgan, 2003). Therefore, understanding this relationship is critical not only to the success of technological opportunism but also to marketing's role in the firm. Unfortunately, no academic marketing research has taken on this challenge in the context of technological opportunism.

Finally, this study begins to understand differences in the mediating effect of marketing emphasis, if any, for business-to-business (B2B) versus business-to-consumer (B2C) firms. Understanding and integrating advancing technology is critical to B2B firms (Easton & Araujo, 2003). Given the differences in how B2B and B2C firms approach their markets, this investigation is warranted to properly inform marketing managers.

The remainder of the paper is organized as follows. First, drawing on the resource-based view of the firm, the potential impact of technological opportunism on firm performance is discussed. Specifically, the relationship between technological opportunism and revenue, profits and firm value are explored. It is then argued that marketing emphasis mediates the effects of technological opportunism on these dimensions of performance. These proposed relationships are empirically tested using data from a survey of senior marketing managers in publicly traded U.S. firms coupled with financial performance data drawn from COMPUSTAT. Finally, the implications of the results as well as potential limitations and suggestions for future research are discussed.

1. Theory: resource-based view

The resource-based view (RBV) focuses on how firms can develop and sustain competitive advantage through effective use of resources and capabilities (e.g., Barney, 1991). Resources are stocks of knowledge, physical and intangible assets, human capital or other elements that a firm has ownership of or control over (Amit & Schoemaker, 1993; Capron & Hulland, 1999). Capabilities are complex bundles of resources that are demonstrated through firm-wide processes and help create competitive advantage (Amit & Schoemaker, 1993; Day, 1994). The unique capabilities owned or controlled by the firm create differences in performance among competitors that lead to competitive advantage (Amit & Schoemaker, 1993; Atuahene-Gima, 2005; Barney, 1991). Managers are therefore challenged to appropriately allocate resources and to build those capabilities that will deliver value to customers. Value then manifests itself in superior performance as measured by both market-based (e.g., market share, customer satisfaction, customer retention) and financial-based outcomes (e.g., return on investment, shareholder wealth) (Bharadwaj, Varadarajan, & Fahy, 1993; Hunt & Morgan, 1995). The sense and respond nature of technological opportunism suggests that firm need to make the investments in assets, skills, and processes such that the capability is in place across the firm. These resource investments as well as the resulting analysis of information and ensuing actions may vary over time such that some firms may be stronger in technological opportunism than others, supporting the resource-based view.

2. Technological opportunism and performance

2.1. Technological opportunism

Firms seek advantages in the market. Perhaps it is a unique resource, a complex process or a capability that creates this advantage. Sensing and responding to technological change is one way that firms can

potentially gain competitive advantage (Srinivasan et al., 2002). Firms that are technologically opportunistic are utilizing their resources to actively scan markets, often beyond those in which their products compete, for disruptive discoveries that will change the way firms do business (Srinivasan et al., 2002). Managers in these firms actively seek information, knowledge, signals, trends and other indicators that can create market advantages. Firms sense these disruptions through investments in resources, day-to-day activities, and formal and informal processes that are in place across functional areas, to create a firm-wide capability (e.g., Stern, McKee, & Rose, 2007). As a result, strong sensing firms are often one of the first in their industries to notice technological developments that may potentially affect the business. For example, those firms that correctly determined the significant impact of the Internet on business and consumer behavior gained time and knowledge advantages, among other benefits, which allowed them to act before competitors.

This strong sensing environment also allows firms to see potentially beneficial external relationships, such as joint ventures or alliances, which will create additional advantages. Reaching outside of the firm can provide benefits, for example, in the form of new innovations (Chandy, Prabhu, & Antia, 2003). Today's technological changes make it incumbent upon the firm to extend the view of external stakeholders to account not only for suppliers, customers, or venture partners but also third-party interest groups (blogs, virtual worlds, etc.). Collectively then, sensing plays an important role in technological opportunism.

Strong sensing provides firms with a more complete view of what might impact them (Weick, 1995). However, it is not enough for firms to simply sense disruptive technological changes. Technologically opportunistic firms must act on the knowledge. This requires proactive investments in such things as product development, manufacturing, marketing and external relationships. These investments help to build the processes that will speed the technological advances along throughout the organization. This positions the firm to act at the right time, in the right place, and in the right manner to capture competitive advantages. Innovation and new products are potential outcomes of technological change. Innovation that includes technological breakthroughs positions firms for additional market share or sustained market leadership (Chandy & Tellis, 1998; Sorescu, Chandy, & Prabhu, 2003). Technological opportunism creates a reinforcing mechanism, allowing for new resources and new marketing knowledge to be incorporated into future innovation activities (Chandy & Tellis, 1998; Chandy & Tellis, 2000).

Technological opportunism is related to, but different from, similar concepts such as organizational innovation or innovation orientation.¹ The concept of innovation centers around measuring "outputs" whether they are new product breakthroughs or new methods of conducting business (e.g., Deshpandé, Farley, & Webster, 1993; Han, Kim, & Srivastava, 1998). For example, Han et al. (1998) explicitly measure whether firms enacted certain innovations. Hurley and Hult (1998) look at the number of new ideas as a measure of capacity to innovate. Deshpandé et al. (1993) focus mainly on new product or service introduction timing when examining organizational innovation. Similarly, innovation orientation centers on the firm's "outputs" such as new products, patents and effort in research and development (Manu, 1992) or product newness/impact (Atuahene-Gima, 1996). Alternatively, technological opportunism can be thought of as the pre-cursor to actual innovation (Govindarajan & Koppale, 2006; Michel, Brown, & Gallan, 2008). A strong technological opportunism capability implies that a firm is innovative but it does not guarantee innovation as measured in "outputs" such as the number of new product breakthroughs. Theoretically, other obstacles may prevent a technologically

¹ In the interest of space, see Srinivasan et al. (2002) for a detailed discussion of the similarities and differences of technological opportunism with other related constructs.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات