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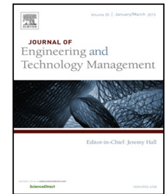

Involvement of "Ostensible Customers" in really new innovation: Failure of a start-up

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ABSTRACT

In contrast to a large body of literature showing the positive impact of customer involvement in really new innovation, this article portrays a failure. Using an inductive research design to examine data collected over four years, the authors analyze the case of a start-up that produced and marketed hi-tech equipment. Although the start-up firm was initially successful, it faced difficulties under the influence of "ostensible customers" who provided insights that were counterproductive in the process of really new innovation. The start-up experienced a downward spiral that ended in product, business, and organizational failure.

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1. Introduction

Studies of organizational failures are less common than studies of organizational successes (Whetten, 1980), but "[f]ocusing attention on failures . . . would help to avoid the mistaken conclusion the modern business enterprise is an uninterrupted sequence of successful refinements" (Williamson, 1985, p. 404). Thus, failures should be studied with the same energy that successes are scrutinized (Nonaka and Takeuchi, 1995; Sheppard and Chowdhury, 2005).

The literature contains both broad and narrow definitions of failure, but it offers no clear consensus on what constitutes a failure (Bruno and Leidecker, 1988; Cameron et al., 1988; Mellahi and Wilkinson, 2004; Watson and Everett, 1996; Weitzel and Johnson, 1989). For example, in broad terms (i.e., not restricted to bankruptcy), failure includes failure of mergers, failure of acquisitions, inability to meet customers' needs, declines, retrenchments, downsizings, and generation of poor profits (Miller, 1977). Alternatively, a business "fails to survive when it can no longer meet its financial obligations to debt holders, employees, or suppliers and resorts to or is forced into bankruptcy or liquidation" (Levinthal, 1991, p. 398).

We adopt a broader definition and include the inability to meet customers' needs (product failure), inability to generate income (business failure), and bankruptcy (organizational failure). In contrast to the current literature studying product, business, and organizational failures separately (each as an event occurring at a point in time), we explore the *process* of failure and investigate multiple potentially cumulative causes of failure (Cooper et al., 1994; Miller, 1977; Romanelli, 1989a,b; Shepherd et al., 2000).

The body of knowledge on organizational failure is fragmented (Mellahi and Wilkinson, 2004) and contains studies through the lenses of various theories. Industrial organization and organization ecology theories advance reasons for failure that are external and beyond the control of the organization. Organization studies and organizational psychology theories posit that reasons for failure are internal and under the control of managers.

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External reasons for failure include, for example, a decrease in demand (Baum and Singh, 1994), changes in the consumer environment (Mellahi et al., 2002), an increase in the number of competitors, erosion of the competitive position, poor profitability (D'Aveni, 1989; Hambrick and D'Aveni, 1988), or technological uncertainty (Slater and Narver, 1994), and organizational responses to changes in the external environment may vary considerably (Hannan and Freeman, 1977, 1984, 1989). Principally, success and failure to adapt are based on (1) population density of the organization's competitive domain because the greater the number of incumbents, the greater the chance of failure (Hannan and Carroll, 1992; Hannan and Freeman, 1988); (2) the organization's age because the younger the organization, the greater the likelihood of failure (Bruno and Leidecker, 1988; Carroll and Delacroix, 1982; Stinchcombe, 1965; Swaminathan, 1996); and (3) the organization's size because the smaller the firm, the greater the likelihood of mortality (Hannan and Freeman, 1984).

Internal factors also partially explain organizational failures. These include, for example, rapid growth (Probst and Raisch, 2005), bad luck (Scherer, 1980), passivity of the board of directors (Mellahi, 2005), underestimation of the need for resources to support rapid expansion, a stagnant bureaucracy, lack of a clear strategy/coordination (Miller, 1977), departure of the founders (Allen et al., 1979; Carroll, 1984; Gouldner, 1954; Grusky, 1963; Haveman, 1993), and organizational changes (Amburgey et al., 1993; Hannan and Freeman, 1984, 1989; Stinchcombe, 1965).

Failure may also result from "misalignment of the organization to the environment's realities" (Sheppard and Chowdhury, 2005, p. 240). One example of misalignment can occur in the case of *really new innovation*, where organizational failure can be caused by a market failure, a technological failure, or misalignment between the market and the technology. Importantly, the literature has largely ignored the impact of product failure on organizational failure in the specific case of really new innovation, but we believe that studying the process of really new innovation failure from both external and internal perspectives is highly relevant to the market and technological sides of failure.

Customers are central to really new innovation because they provide ideas, wants, and needs that reconcile market and technological aspects, and customer involvement can occur at any step of the process, including idea generation, development/co-design, prototype development, and market launch. While several studies have focused on this involvement, conflicting findings preclude any conclusion on whether customers stimulate (Condit, 1994; Coyne, 2000; Herstatt and von Hippel, 1992; Lilien et al., 2002; Lüthje and Herstatt, 2004; von Hippel et al., 2000) or stall radical innovation (Becker and Peters, 1998; Camagni, 1993; Enkel et al., 2005a,b; Pisano, 1990; Robertson and Langlois, 1995).

Within large firms, the involvement of customers can foster or hinder really new innovation, but in small firms, the outcomes can be much more dramatic. For our discussion on really new innovation, we distinguish product failure (technical impossibility to make the product function properly) from market failure (the product functions as planned but does not achieve market success). Product failure or market failure in the specific case of really new innovation can rapidly lead to failure of a single business unit of a start-up, which can lead to bankruptcy of the entire firm (organizational failure) owing to the absence of a buffering stock of resources. Although the processes of corporate rejuvenation (Stopford and Baden-Fuller, 1990) and downward spiraling (Hambrick and D'Aveni, 1988) are relevant for larger firms, start-ups face a greater challenge, which possibly explains why the small business mortality rate is so high (Chowdhury and Lang, 1996). However, few studies have examined small firms' turnaround strategies (Boyle and Desai, 1991; Cater and Schwab, 2008; Rasheed, 2005).

The topic of start-up failure demands attention because such small structures may fail for additional reasons: low access to venture capital (Bilau and Couto, 2012; Bozkaya and van Pottelsberghe de la Potterie, 2008), homogeneity in the management team (Bantel and Jackson, 1989; Greening and Johnson, 1996), narcissistic behavior of the leaders (Macoby, 2000), management control issues (Boyle and Desai, 1991), an unclear mission statement and vision, difficulties in managing customers, poor financial management (Longenecker et al., 1999), the simultaneous offer of too many products (Barnett and Freeman, 2001; Wezel and van Witteloostuijn, 2006), etc. However, the impact of product failure and market failure on start-ups' organizational failures in the specific case of really new innovation has not been addressed in the current literature.

Several gaps in the literature have raised our interest. First, we examine product failure, business failure, and organizational failure together and from a process perspective, which is currently missing in the literature. Second, we respond to the need for further study of customer involvement's effect on really new innovation. Third, we address the empirical gap resulting from limited studies on small firms' failures. Our paper is therefore positioned in the intersection of four areas of literature: organizational failure, radical innovation, customer involvement in new product development (NPD), and start-ups.

The purpose of the article is to learn from failure. We study the process of failure, including product failure, business failure, and organizational failure, to investigate the reasons for really new innovation failure from both market and technological perspectives. In particular, we study how customers can stimulate or stall really new innovation in the specific case of a start-up. Consequently, the following research question motivates our investigation: *How do customers stall really new innovation in the process of start-ups' markets and technology failures?*

The article proceeds as follows. We first present a theoretical framework related to organizational failure, the distinction between radical and really new innovation, and the role of customers. We then discuss the case study method and, in particular, the knowledge biography technique. Subsequently, we present an in-depth case study using this technique at the start-up company we call "PCB Laser." We conclude by discussing the technical and market failures of the company.

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