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Opportunities for disruption

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ABSTRACT

In view of the importance of Disruptive Innovations (DIs) in both emerging and advanced economies, a better understanding of how to cultivate opportunities for DIs is called for. We provide case study exemplars that illustrate how entrepreneurs have deliberately undertaken DIs for customers of low-end and new markets. Our findings show how the entrepreneurial opportunities embedded in these DIs are purposefully discovered and created. By extending research on the generation of entrepreneurial opportunities into the arena of disruptive innovations, the paper aims to contribute to understanding of both DI and the nature of opportunity generation and to provide a basis for guidance to practitioners.

1. Introduction

Some innovations have the potential to disrupt the market for competing products and services while others sustain the competitive position of incumbent firms. From the perspective of opportunity recognition, new entrants who do not have existing customers to consider face lower opportunity costs than incumbents and hence may view the opportunity in a different light. These issues are relevant to assessing changes in the emerging economies that are giving rise to potential new opportunities (Wan et al., in press). A theory explaining the difference between disruptive and sustaining types of innovation advanced by Christensen and Bower (1996) has implications for theories of entrepreneurial opportunity detection and creation. They pointed out that incumbents are disrupted when unprepared for the erosion of their markets by an innovation that was initially inferior in terms of the performance criteria preferred by mainstream customers but met the needs of other customers in new ways and improved over time to the point of satisfying mainstream customers (Christensen, 1997). A classic case was the unexpected erosion of the market for mainframe computers by the microcomputer in the 1980s. The commercial potential of the microcomputer was first recognized by hobbyists, then by the founders of Apple and only later by the incumbent, IBM, which developed their PC in response to the threat from Apple (Langlois, 1992). Moreover, whether or not incumbents are disrupted, the new market thus created may be so large as to motivate the creation of new businesses with growth aspirations (Christensen and Raynor, 2002; Utterback and Acee, 2005).

The rapid economic development of China, India, and other Asian countries, coupled with the inability of most of their populations to afford foreign products designed for the developed world, has made these emerging nations fertile ground for developing and testing innovations that are affordable and good-enough to meet consumers' basic needs at a relatively low cost (Hart and Christensen, 2002). Innovators who set out to create such innovations may bring them back to the advanced market as "reverse innovations" (Govindarajan and Trimble, 2012) which may eventually threaten the higher-end, more costly version of these products. In this sense they are potential disrupters. The mass markets of the "bottom of the pyramid (BOP)" income groups (Prahalad, 2004) have caught the attention of companies from around the world. Developing disruptive products for such markets offers extensive opportunities for companies not only to establish a strong foothold in the emerging economies (Hang et al., 2010) but also to create reverse innovations that can be brought back to advanced markets (Immelt et al., 2009; Govindarajan and Trimble, 2012).

Over the last decade the concept of disruptive innovation (DI) has been clarified as more cases have been examined in the literature (Yu and Hang, 2010). In the past the theory was largely based on empirical evidence of cases that proved successful ex post. Christensen holds that the theory could also be used for ex ante prediction, citing four successful examples (Christensen, 2006). Scholars take different positions on possible applications of the theory of DI (Danneels, 2004; Christensen, 2006). There has also been debate as to whether the theory of DI can be used to predict if an early stage innovation might subsequently become disruptive. Research on R&D strategies aiming to create candidate technologies for disruptive applications at the fuzzy front end has

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also begun to attract scholars' attention (Linton, 2004; Yu and Hang, 2011).

What these studies make clear is that entrepreneurs whose innovations turn out to be disruptive are actively engaged in discovering and creating opportunities. This makes it appropriate to look into literature on the entrepreneurial pursuit of opportunities to see if its themes can illuminate the pursuit of DI. In view of the importance of DIs in both advanced and emerging economies, a better understanding of how the pursuit of opportunities can result in DIs is called for. We sought case study exemplars that illustrate the way entrepreneurs have engaged in innovations for low end customers and for new markets – innovations that have the potential to be disruptive – and the obstacles they faced in doing so. By extending research on entrepreneurial opportunities into the arena of DI, this paper aims to better understand how DIs can be cultivated and pursued purposively by entrepreneurial innovators and to use this understanding to provide guidance to practitioners. The editors of an extensive compendium of articles on entrepreneurial opportunities (Shepherd and Grégoire, 2012) point out that very few authors have approached the issue of opportunities from a normative or prescriptive perspective. Here we hope to provide guidance to practitioners seeking to provide new and low end innovations for emerging markets.

The paper is organized as follows. Following a review of literature on entrepreneurial opportunity, we explore the relationship between DI and entrepreneurial opportunity. After describing the research design and methodology we present brief histories of four cases of disruptive innovation and discuss these cases. We make a cross-case comparison by summarizing the case evidence using a framework proposed by Alveraz and Barney (2007) on differences between opportunity discovery and creation. We go on to examine the relevance of the findings to the literature and conclude with recommendations for practice.

2. Literature review

2.1. Entrepreneurial opportunity

Entrepreneurial opportunity is defined in various ways in the entrepreneurship literature. When establishing the contours of entrepreneurship studies, Shane and Venkataraman (2000) used Casson's definition of entrepreneurial opportunity (1982), as "those situations in which new goods, services, raw materials, and organizing methods can be introduced and sold at greater than their cost of production" (Shane and Venkataraman, 2000: p. 220). In line with this definition, Eckhardt and Shane (2003: p. 336) proposed that entrepreneurial opportunities are "situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships." These two definitions view entrepreneurial opportunity as an objective phenomenon resulting from information asymmetry that generates variation in subjective views and incentives among agents.

In this perspective, market processes ensure that profit incentives automatically motivate action and there is no specification of the mechanisms through which opportunities come to be pursued and realized. In contrast Sarasvathy et al. (2010) point out that the pursuit of an entrepreneurial opportunity includes not only new ideas and inventions needed to achieve economic ends, but also the beliefs and actions that motivate and enable these ends to be realized. This view takes into account the way entrepreneurial perceptions and actions operate to turn a situation into an opportunity, often through persistent trial and error on the part of entrepreneurs, who may shift their goals or ends in order to make best use of the means at their disposal, a process Sarasvathy terms "effectuation." In essence, entrepreneurs following this process do not commit themselves to pre-existing goals or ends but instead use the means available to them in pursuing opportunities in a creative and flexible way (Sarasvathy, 2001). It has elsewhere been pointed out that entrepreneurs may in practice be inventive in identifying and accessing new resources in pursuit of opportunity while keeping goals open-ended (Garnsey, 1998).

2.2. Opportunity discovery vs. opportunity creation

Sarasvathy et al. (2010) pointed out that: "An opportunity presupposes actors for whom it is perceived as an opportunity; at the same time, the opportunity has no meaning unless the actor/s actually act upon the real world within which the opportunity eventually has to take shape." (Sarasvathy et al., 2010: p. 79). In the literature on entrepreneurship, there is an ongoing debate on whether opportunities are discovered or created and how the two views can be reconciled and synthesized (Venkataraman et al., 2012). Among the contributions to this debate are: (1) The comparison of the ontology of the two views (Gartner et al., 2003; Alveraz and Barney, 2007; Miller, 2007; Klein, 2008); (2) reconciliation of the two views based on structuration theory (Chiasson and Saunders, 2005; Sarason et al., 2006); (3) a synthesized view of the ontology of the two concepts based on (i) the behavioral theory of the firm or (ii) an organizational learning framework (Dutta and Crossan, 2005; Zahra, 2008); and (4) the epistemology of the two concepts (Wood and McKinley, 2010; Alvarez and Barney, 2010).

There are numerous other contributions to the theory of opportunity discovery and creation in a very extensive literature (cf. the compilation edited by Shepherd and Grégoire, 2012). In this paper, we draw from the framework provided by Alveraz and Barney (2007) that simplifies the ontological debate on the discovery and creation perspectives and explores implications of the distinction for practice. In setting out our research methodology below we explain why and how we draw on this account to analyse DI. We summarise its main dimensions in what follows.

Alveraz and Barney (2007) identify three dimensions of difference in the assumptions of the two theories: (1) the nature of opportunities; (2) the nature of entrepreneurs; and (3) the nature of the decision making context. They argued that the "debates about whether an opportunity is a discovery or creation opportunity, by themselves, are without empirical content." (Alveraz and Barney, 2007: p. 205). They believe that investigation of the implications of these theories for the kinds of entrepreneurial actions required in different settings is the most fruitful way to proceed. They offer a way to operationalize constructs from the theory by identifying specific actions and strategies associated with each perspective. In particular they discuss the implications of the two theories with respect to seven aspects of entrepreneurial action—in the areas of leadership, decision-making, human resource practice, strategy, finance, marketing, and sustaining competitive advantage. They summarize the assumptions implied in the theory of opportunity discovery by entrepreneurs as follows: Opportunities occur in pre-existing markets and their identification relies on the entrepreneur's prior knowledge or experience. The context is subject to calculable risk and information is available for prediction and risk control, making it possible to anticipate skill requirements. Such information makes possible relatively complete and long-term strategies, the attraction of external funding and specification of the required marketing mix. However, once information about the opportunity is made public by the entrepreneur's actions, competitive imitation will soon follow. Hence to protect a new business the entrepreneur needs to achieve speed to market, maintain secrecy and erect other entry barriers.

In contrast, they summarize the assumptions embodied in the theory of opportunity creation as taking place where there is no