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Dynamic ambidexterity: How innovators manage exploration and exploitation

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Abstract   Firms must excel at both exploration and exploitation to ensure long-term survival and prosperity. However, firms often have difficulties in doing so because they have to accommodate the contradictory logics of exploration and exploitation. This article examines the logics of exploration and exploitation, evaluates the difficulties of accommodating both logics, and identifies dynamic ambidexterity as a new way to overcome these difficulties. To achieve dynamic ambidexterity, firms need to support structural ambidexterity at the corporate level, contextual ambidexterity at the business-unit level, and sequential ambidexterity at the project level. I believe that the notion of dynamic ambidexterity and its managerial practices can help firms manage exploration and exploitation and ensure long-term survival and prosperity.

1. The innovator's dilemma: Another look

Disruptive change often causes firms to stumble and fall (Christensen, 1997). Such was the case of Disney Animation Studios. In the era of hand-drawn animation, Disney created such culture-defining films as *Snow White and the Seven Dwarfs, Beauty and the Beast,* and *The Lion King.* Disney excelled at hand-drawn animation, but it struggled to adapt to computer animation. It was Pixar, not Disney, that

released the world's first computer-animated feature film in 1995, at which point computer animation started to disrupt hand-drawn animation. Despite this shift within the animation industry, Disney only managed to release its first partially computer-animated feature film in 2000 and its first fully computer-animated feature film in 2005. In fact, after the release of *The Lion King* in 1994, Disney's animation empire declined.

To reverse its decline, Disney had to acquire Pixar in 2006 and let Pixar's leadership team take over the management of Disney Animation. Since then, the new leadership team has implemented a new set of managerial practices to revive Disney Animation,

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enabling its resurgence with a number of new computer-animated films, including *Frozen, Big Hero 6,* and *Zootopia.* Disney's story shows that firms, even the most successful ones, can fail to respond to disruptive change. More importantly, it also suggests that in the face of disruption, firms can take measures to reverse their decline, develop new capabilities, and seize new opportunities (Catmull, 2014; Stewart, 2005).

To meet the challenge of disruptive change, firms need both to explore and exploit (March, 1991). They exploit existing information and capabilities to ensure short-term success and explore new information and possibilities to achieve long-term prosperity. However, even well-managed firms often succeed at exploitation but fail at exploration (Christensen, 1997; Cooper & Schendel, 1976; March, 1991). They excel at exploiting existing technologies and markets while often missing out on new technologies and markets. Innovators often face a dilemma—the dilemma of how to avoid missing out on new opportunities while existing ones need attention.

In this article, I take a new look at the innovator's dilemma, the root cause of which is not that firms disregard new opportunities but that they mismanage exploration. Exploration and exploitation follow different logics and call for different managerial practices. But the logic of exploitation too often overshadows the logic of exploration in firms, resulting in the mismanagement of exploration. One way to resolve the innovator's dilemma is through *organizational ambidexterity*: building organizational capabilities to accommodate contradictory logics. Prior research has proposed many ways to achieve organizational ambidexterity, and each has its merits and limits. In this article, I propose a new form of ambidexterity—*dynamic ambidexterity*—which builds on existing forms and mitigates their limits. Dynamic ambidexterity achieves structural ambidexterity at the corporate level by dedicating some business units to exploration and others to exploitation. It achieves contextual ambidexterity at the business-unit level by creating an organizational context in which employees within each business unit are encouraged to explore and exploit. It achieves sequential ambidexterity at the project level by matching projects at different stages to business units with different characteristics. I believe that dynamic ambidexterity represents a comprehensive solution to the management of exploration and exploitation.

In this article, I will investigate the nature and characteristics of dynamic ambidexterity. In the next section, I will start with a brief discussion of the contradictory logics of exploration and exploitation, followed by an overview of the challenges of achieving organizational ambidexterity.

2. The logics of exploration and exploitation

A logic is the means by which managers conceptualize a business and make critical decisions about the business (Prahalad & Bettis, 1986). The logics of exploration and exploitation are contradictory in the sense that they represent different conceptions of businesses and call for divergent managerial practices (Besharov & Smith, 2014). In this section, we will examine the nature of these two logics.

2.1. The logic of exploitation

Exploitation focuses on utilizing what firms have already known (March, 1991). An exploitative orientation relies on the assumption that the firm has complete information about external opportunities and internal capabilities. Exploitative firms expect to work within well-established problem-solution frameworks, under which problems and solutions can be clearly defined. Organizational attention is focused on existing businesses or existing ways of doing businesses and on employing available information and capabilities to achieve short-term organizational goals and market positions. Exploitation involves low levels of uncertainty and has high rates of success.

Most well-managed firms are good at exploitation (March, 1991). They strive for short-term successes, which require them to deliver reliable revenues and profits (Govindarajan & Trimble, 2010). As such, ongoing operations are optimized to improve organizational performance, creating further pressures for future performance. The pressure to deliver consistent and reliable results focuses organizational attention on improving reliability, efficiency, and control. In this way, exploitative firms have designed and shaped their managerial practices to fit the logic of exploitation.

2.2. The logic of exploration

Unlike exploitation, exploration focuses on discovering what is yet to be known (March, 1991). Exploratory business investigates new businesses or new ways of doing businesses. An exploratory orientation suggests that a firm may not have complete information about all possible opportunities, so it needs to sense and seize new opportunities (Teece, 2007). Exploration centers on the belief that firms