Chapter 19
Reactive and Proactive Dynamic Capabilities:
Using the Knowledge Chain Theory of Competitiveness

Clyde W. Holsapple
University of Kentucky, USA

Jae-Young Oh
University of Kentucky, USA

ABSTRACT

This chapter investigates the dynamic capabilities of market creators and followers by studying the nature of the environments they face. The turbulent and rapidly changing business environment forces a firm seeking to sustain its competitiveness to choose whether to enter an emerging market or create a new market. Both directions can lead firms to success in a market but only when they cultivate appropriate dynamic capabilities. In the mobile industry, for instance, the different approaches for success of Apple, market creator of the smart phone, and Samsung, a successful follower in that emerging market, provide an example for considering and understanding such capabilities. In this study, the authors examine ways in which several theories attempt to explain the success of Apple and Samsung. They introduce the idea of classifying dynamic capabilities into reactive and proactive types, each of which can lead to success. The classification is enriched into a knowledge-based framework by applying the knowledge chain theory. The framework also accommodates concepts from other theories that are reviewed. This study makes contributions to understanding knowledge-based competitiveness: (1) the classification of dynamic capabilities into "proactive" and "reactive" gives a unified understanding of how both a pioneer and followers can succeed in a market; (2) the framework delves into mechanisms of how competitive advantage from the two kinds of dynamic capabilities is produced through the lens of the knowledge chain theory; (3) the framework can serve as an action guide in coping with turbulent business situations.

DOI: 10.4018/978-1-5225-5481-3.ch019

INTRODUCTION

Here, we investigate the intersection of knowledge management and sustainable competitive advantage, with dynamic capabilities as the area of intersection. The result is a framework for more fully understanding the role of knowledge management in creating and sustaining a competitive edge. The framework embraces both innovation and imitation as routes to competitiveness. To illustrate it, we consider an example from the mobile communications industry.

Firms are facing a rapidly changing business environment in which no firm easily holds competitive advantage for dominant status in a market. If a firm pays no attention to innovation, its dominant position in a market can be jeopardized and assumed by followers (Sosa, 2013). This issue has been addressed in the characterization of "Dynamic Capabilities," defined as capabilities "…to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments" (Teece, Pisano & Shuen, 1997, p. 516).

Beyond resources inherent in firms, as suggested by the Resource-Based View (RBV), Teece and colleagues (1997) argue that sustained competitive advantage comes from dynamic capabilities. This is because a resource set may be unable to indefinitely yield competitive advantage as an environment changes. However, the distinguishing factor is knowledge for appropriately using the resource set in a current environment – a knowledge that needs to develop as the environment changes (i.e., organization learning is a key for ongoing realization of dynamic capabilities).

The theory of dynamic capabilities has been studied in many areas in order to explain why firms outrival competitors and sustain dominant positions in markets. Examples include such areas as operations and supply chain management (Reuter, Foerstl, Hartmann & Blome, 2010; Allred, Fawcett, Wallin & Magnan, 2011), information system (Sher & Lee, 2004), marketing (Salunke, Weerawardena & McColl-Kennedy, 2011), and management (Teece, 2007). However, dynamic capabilities are still insufficient to explain recent business phenomena.

In the mobile industry, for example, there have been huge changes since Apple launched iPhone, the so-called Smart Phone, into the market in 2008. Apple, previously not a player in the mobile industry, forged ahead of existing mobile manufacturers such as Nokia, RIM (Research In Motion), and Samsung, and became a leading company in the mobile industry. Interestingly, only Samsung has been successful at competing with, and even out-distancing, Apple. Apple definitely has dynamic capabilities (Teece, 2011). At the same time, Samsung must also have dynamic capabilities, because it not only survives in the changed business environment, it is a leading company in the market. How can dynamic capabilities explain the two companies' cases? Do they have the same dynamic capabilities or are there different types of dynamic capabilities? If any, what are they?

Based on these observations, we pose three research questions: (1) What is the capability of a market creator? (2) What is the capability of a successful follower? (3) What are the roles of the two capabilities in being competitive? If we answer these questions, then we have a basis for better understanding alternative avenues to competitiveness that involve knowledge enrichment. For instance, we can distinguish between capabilities of Apple and Samsung, or between those of Samsung and Nokia, HTC, or RIM.

Several theories, such as "disruptive innovation theory" (Christensen, 1997), "exploration-exploitation theory" (Knott, 2002), and "first/late mover advantage theory" (Lieberman & Montgomery, 1988), may come into play to answer those questions. However, these theories are still insufficient to clearly resolve the issues. We find answers to these questions by integrating the dynamic capabilities perspective with the knowledge chain theory. The latter identifies and characterizes nine knowledge management (KM)