Chapter 2
Harnessing Knowledge Power for Competitive Advantage

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ABSTRACT

A great many organizations rely upon advancing Information Technology (IT) in their quests for competitive advantage. The problem is that as long as competitive advantage is based on IT and like resources that are obtainable or substitutable by competing organizations, it is likely to be ephemeral at best. Alternatively, competitive advantage enabled by tacit knowledge is comparatively much more sustainable, but such knowledge tends to be sticky and does not flow well through the organization. Hence, the power of tacit knowledge is great in terms of enabling and particularly sustaining competitive advantage, but the corresponding dynamics can make it difficult to capitalize upon effectively. This chapter focuses specifically on how the power of dynamic knowledge (i.e., knowledge flows) can be harnessed for competitive advantage. The authors first examine in some detail how different kinds of knowledge and other organizational resources enable competitive advantage. They then discuss the dynamics of knowledge, looking in particular at how it flows through the organization. The chapter concludes with five key insights for use and application.

COMPETITIVE ADVANTAGE

It is difficult to find an organization that is *not* interested in competitive advantage in today's dynamic, global, highly competitive environment (Matusik & Hill, 1998; Chaharbaghi & Lynch, 1999; Barney, 2002; Fahey, 2002; Teece, 2009). Organizational strategists have long discussed competitive advantage (esp. in economic terms such as earning superior rents, gaining larger market share, raising barriers to market entry, locking out competitors, and locking in customers; see Barney, 1986), but the comparatively recent advent and continuing proliferation of social media applications (e.g., social networking such as Facebook, microblogging such as Twitter, collaborative projects such as Wikis; see Kaplan & Haenlein, 2010) is changing the nature of competition (Nissen & Bergin, 2013). Nonetheless, numerous empirical studies assess (Castillo, 2003) and provide evidence (Darroch, 2005; Marques & Simon,

DOI: 10.4018/978-1-5225-5481-3.ch002

2006; Bogner & Bansal, 2007; Holsapple & Jones, 2007; Zack, McKeen & Singh, 2009; Holsapple & Wu, 2011; Jayasingam, Ansari, Ramayah & Jantan, 2012; Nold, 2012) that competitive advantage stems from the intellectual and other assets that an organization is able to appropriate (i.e., assert ownership over), in addition to how such assets are used (Holsapple & Singh, 2001) and the process capabilities that it is able to employ dynamically (Teece, Pisano & Shuen, 1997). The latter part of this point is key: if an organization bases its competitive advantage on some assets that can be obtained readily through the market, then there is little to prevent competitors from obtaining the same or similar ones over time (Dierickx & Cool, 1989). Hence any competitive advantage effected by the lead firm is destined to be ephemeral at best.

This is the case especially for information technology (Nissen, 2006). For a period of time in the Seventies, for instance, a few banks offering automated teller machines (ATMs) to customers enjoyed some competitive advantages over those without this technology, but today nearly every bank offers ATMs. Instead of conferring some competitive advantage, now ATM technology represents just another cost of doing business in banking. Computerized reservation systems (CRSs), as another instance, similarly conferred some competitive advantage to the pioneering airlines behind their development and initial deployment in the Eighties, but today nearly every airline uses CRSs. Instead of conferring some competitive advantage, now CRS technology represents just another cost of doing business in air travel. Leading-edge financial investment firms, as a third instance, gained some competitive advantage in the Nineties through computer trading systems for securities such as stocks, bonds and futures, but today nearly every financial investment firm trades securities as such. Instead of conferring some competitive advantage, now this information technology represents just another cost of doing business in securities financial investment. The list of similar instances goes on and continues through cloud computing, mobile applications, tablets, social media and like trends that are current at the time of this writing.

The same applies also to other primary resources such as the traditional economic inputs of land, labor and capital. For instance, in terms of land, for centuries the vineyards of France enjoyed considerable competitive advantage over wine producers in other regions. However, world-class, award-winning wines are produced today in California, South America, Australia and other regions. Fine wines are produced still in France of course, but the land alone is no longer sufficient for competitive advantage over vintners in other fertile regions of the world. As another instance, in terms of labor, for decades following World War II the relatively low cost and high quality of Japanese workers conferred considerable competitive advantage across numerous durable-goods and consumer-electronics industries (e.g., machinery, automobiles, televisions, radios). Then labor-based advantages shifted to places like South Korea, Malaysia, Mexico and other nations. Today China appears to be capitalizing best on the basis of labor. Japanese firms remain competitive still in markets for some goods, electronics and other products, but the labor force alone is no longer sufficient to confer competitive advantage over manufacturers in other industrializing nations. Such shifting of labor-based advantage is clearly not limited to manufacturing industries. A huge number of IT and service jobs, for two contemporary instances, have moved from Europe and North America to India, Singapore and like countries with relatively well-educated, low-cost work forces possessing technical skills. However, as educational levels and technical skills continue to rise in other countries, India, Singapore and like nations enjoying labor-based competitive advantage today are likely to find such advantage cannot be sustained through the onset of new competitors. As a third instance, in terms of capital, for centuries the days of gold coins and later even paper money restricted financial flows to relatively small geographical regions. Regional concentrations formed where large banks, industries and markets coalesced together, and such regions enjoyed competitive advantage

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