Chapter 9

ORCI:
A Validated Method for Measuring Dynamic Intellectual Capital

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ABSTRACT

As more and more organizations have to compete in turbulently changing environments, the ability for continuous renewal, learning and innovation has become a key driver of organizational success. However, the existing research on IC has failed to create scientifically validated methods for assessing organizations' dynamic capabilities or "renewal capital". This paper presents the ORCI (Organizational Renewal Capability Inventory) method for measuring dynamic capabilities and illustrates how the method can be used for developing organizational ability for continuous learning and innovation.

INTRODUCTION

As knowledge has become the primary driver of competitive advantage in the contemporary economy, new approaches for measuring organizational performance are needed which recognize the knowledge-based aspects of value creation (e.g. Edvinsson & Malone, 1997; Sveiby, 1997; Roos et al., 1998; Bontis, 1999). Also organizational measures are needed which recognize and help to manage the knowledge-based aspects of value creation. Intellectual capital research aims to tackle this challenge and construct methods for identifying, describing, measuring, reporting and valuating intangibles in organizations, regions, networks and nations. It attempts to overcome the limitations of conventional indicators that are used to explain, measure and manage organizational performance and to provide classifications for intangibles that go more in-depth than the resource-competence-capability distinction, and examine intellectual wealth from a comprehensive perspective.

In turbulent environments, sustained competitive advantage derives from the firm capabilities for continuously modifying, changing and creating knowledge assets and capabilities through learning and innovation (e.g. Leonard-Barton, 1995; Teece et al., 1997; Eisenhardt & Martin, 2000). Even
though mastering continuous change has become an important issue for an increasing number of organizations, the IC literature has so far remained quite isolated from the themes of innovation, learning and organizational change (Kianto, 2007, 2008b). Most of IC research adopts the viewpoint of IC as a static stock (Bontis, 1999), and ignores that especially in dynamic environments, it is necessary to be able to renew the intangible assets continuously. The existing IC literature has mainly conceptualized intellectual wealth as a static asset rather than a dynamic capability.

This paper adopts the concept of dynamic capabilities to examine how an organization is able to use its knowledge resources for learning and innovation. Dynamic capabilities have been defined as “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece et al. 1997, pp. 516). Thus, in constantly changing environments, the dynamic capabilities approach can give a more substantive picture than traditional views of how competitive advantage is gained and sustained (Levitas & Ndofor, 2006).

However, at the moment, most of the research on dynamic capabilities is based either on theoretical argumentation and some case studies, and there is a lack of quantitative instruments that would enable reliable assessment, internal management and development of dynamic capabilities, as well as inter-firm benchmarking comparison and external communication of them.

To bridge this gap in the existing literature, the paper addresses three intertwined issues:

- how the static and dynamic aspects of IC are related
- what elements does dynamic capability consist of
- how dynamic capability can be measured

By addressing these issues, the paper contributes to the literature on intellectual capital by clarifying the connections between the static and dynamic dimensions of intellectual capital and their role in value creation. It also provides a theoretical framework and systematic technique called ORCI (Organizational Renewal Capability Inventory) for collecting, analyzing and interpreting data about dynamic capabilities (Kianto, 2008). Furthermore, the paper illustrates how the method can be used for developing organizational ability for continuous learning and innovation.

**INTELLECTUAL CAPITAL AND DYNAMIC CAPABILITIES**

In the fast-paced market environment of today and the future, it is not enough for organizations merely to leverage their existing IC. There is an increasing pressure for all kinds of organizations to proactively produce continuous change and renewal (Leonard-Barton, 1995; Teece et al., 1997; Eisenhardt & Martin, 2000; Pöyhönen, 2004). In unpredictably and rapidly changing environments, organizational abilities for conducting changes become a more significant source of long-term competitive advantage than the intellectual or other resources that the firm governs at some particular point in time. Therefore, IC research should address organizational capabilities for producing and mastering change through continuous learning and innovation.

It has been claimed that the new and dynamic modes of competition cannot be adequately explained by traditional strategic and organizational theories (e.g. Eisenhardt & Tabrizi, 1995; Sanchez, 1997), and thus new approaches, which recognize the complex and chaotic nature of today’s business environments, are required to explain how competitive advantage is created and sustained in business organizations. For this purpose, the field of strategic management has introduced a paradigm called dynamic capabilities (DC). Dynamic capabilities have been defined as “the firm’s ability
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