Chapter IV

Enabling Strategy Formulation by ICT: A Viable Systems Approach

Dirk Vriens
University of Nijmegen, The Netherlands

Jan Achterbergh
University of Nijmegen, The Netherlands

ABSTRACT

In this chapter the role of ICT for competitive intelligence is approached from the perspective of strategy formulation. The authors hold the view that competitive intelligence can be seen as knowledge necessary for the process of strategy formulation. To determine the role of ICT, it is proposed to examine (1) the process of strategy formulation, (2) the knowledge relevant for the process of strategy formulation and (3) the knowledge processes in which the intelligence relevant for the process of strategy formulation is produced and processed. If these three elements are clear, the role of ICT for competitive intelligence can be reformulated as the support of ICT for the knowledge processes, producing and
processing the necessary intelligence for strategy formulation. In the chapter, the process of strategy formulation and the knowledge it requires will be described by using the Viable Systems Model of Stafford Beer. It results in an “ICT-architecture” for supporting the knowledge processes, producing the relevant knowledge for strategy formulation.

INTRODUCTION

An adequate intelligence function is indispensable for (re)formulating strategies in a world that is getting both “larger” as new markets are opened up and “smaller” as (information and communication) technologies develop to spot these markets and profit from them. To remain viable, organizations need to identify and define their relevant environments, to scan them for opportunities and threats, to use these scans for formulating their strategies, and to act on these strategies. The contribution of business or competitive intelligence to strategy formulation (and implementation) is a key factor for organizational viability.

Because of the importance of business or competitive intelligence (BI or CI) for organizational viability, a lot has been written lately about its goals and main processes (e.g., Fuld, 1995; Kahaner, 1997; Vriens & Philips, 1999; Cook & Cook, 2000). Vriens and Philips (1999), for example, define competitive intelligence as “a process of gathering and processing information about the environment to support the process of strategy formulation.” In this definition, the function of delivering relevant “external” information is central. Others, however, see BI as a process that (also) delivers “internal” information to support formulating strategies (e.g., Dresner, 1989). In this latter category, authors point, for instance, to the information provided by means of the balanced scorecard or by data warehouses.

For (re)formulating strategies, both internal and external information (and their integration) is needed. Competitive intelligence seems to be the label, in literature as well as in practice, for a function in organizations that covers the supply and processing of information for strategy formulation.

Competitive intelligence activities can be supported by information and communication technology (ICT), and most authors agree on the importance of ICT for these activities (e.g., Fuld et al., 2002; Philips & Vriens, 1999; Kahaner, 1997; Cook & Cook, 2000). Several studies show the use of ICT in competitive intelligence activities. Vriens and Hendriks (2000), for instance, show how Web-enabled technologies may enable data-collection. Teo and
A Comparative Study on Medical Diagnosis Using Predictive Data Mining: A Case Study
www.igi-global.com/chapter/a-comparative-study-on-medical-diagnosis-using-predictive-data-mining/142659?camid=4v1a

Data Stream Mining
Jesse Read and Albert Bifet (2014). Encyclopedia of Business Analytics and Optimization (pp. 664-666).
www.igi-global.com/chapter/data-stream-mining/107269?camid=4v1a