# Chapter 2.1 E-Business Planning and Analysis Framework

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#### INTRODUCTION

This chapter reports on a framework that has been successfully used to analyze the e-business capabilities of an organization with a view to developing their e-capability maturity levels. This should be the first stage of any systems development project. The framework has been used widely within start-up companies and well-established companies both large and small; it has been deployed in the service and manufacturing sectors. It has been applied by practitioners and consultants to help improve e-business capability levels, and by academics for teaching and research purposes at graduate and undergraduate levels.

This chapter will provide an account of the unique e-business planning and analysis framework (E-PAF) and demonstrate how it works via an abridged version of a case study (selected from hundreds that have been produced). This will include a brief account of the three techniques that

are integrated to form the analysis framework: quality function deployment (QFD) (Akao, 1972), the balanced scorecard (BSC) (Kaplan & Norton, 1992), and value chain analysis (VCA) (Porter, 1985). The case study extract is based on an online community and dating agency service identified as VirtualCom which has been produced through a consulting assignment with the founding directors of that company and has not been published previously. It has been chosen because it gives a concise, comprehensive example from an industry that is relatively easy to relate to.

#### **BACKGROUND**

Kalakota and Robinson (2001) argued that organizations must bear in mind not to focus too much on the 'e' component, but also on the business requirements. The greatest threat to an organization is either failing to deploy the Internet, or failing

to deploy it strategically and therefore without efficacy (Porter, 2000). Organizations should deploy an e-service only if it is concordant with its strategic needs. Not all e-business mechanisms are right for every organization (Lord, 2000). The correct application must be chosen or developed with both the process it supports and the strategic objectives of the company in mind. A deadly assumption would be to believe that technology is the answer to all process and strategic weaknesses; in response to this concern, this e-business planning and analysis framework was developed.

There are many types of analysis frameworks available (Ballantyne & Brignall, 1992). According to Wu (1992), good frameworks should be able to guide managers towards a method or solution uniquely suitable to a particular situation in question. On the whole, frameworks should not be too complex to use, and information interaction within the framework should be clear and concise to avoid information overload. Lee and Ko

(2000) proposed a framework for strategic business analysis, by integrating SWOT (strengths, weaknesses, opportunities, and threats), balanced scorecard, quality function deployment, and "Sun Tzu's the art of business management strategies" techniques. In a similarly proposed framework, Lee, Lo, Leung, and Ko (2000) integrate the SWOT (de Witt & Meyer, 1998) BSC, QFD, and the Malcolm Baldrige National Quality Award's (MBNQA) education criteria, to formulate policy for vocational education in Hong Kong.

While many analytical techniques such as the SWOT, SLEPT (social, legal, economic, political, technical) (de Witt & Meyer, 1998), and the BSC analyses can be used to identify the strategic needs of an organization, none provide a direct mechanism to prioritize the needs and convert them into operational processes, or to then translate those processes into a specification that can be used to develop or acquire supportive software systems. In contrast, other analytical techniques

*Table 1. The three techniques of the E-PAF* 

|                      | Analysis Technique  |   |  |
|----------------------|---|---|--|
|                      | Balanced<br>Score Card<br>(BSC)   | Value Chain<br>Analysis (VCA)   | Quality Function<br>Deployment (QFD)   |
| Primary<br>Purpose   | Establishes<br>strategic<br>objectives  | Establishes the high-level logic of the value-adding activities within customer facing business processes                       | Analyzes and manages the trade-off between business objectives ("whats") and business processes ("hows"), and <i>deploys</i> these to lower levels of definition for detailed systems design |
| Main<br>Strength(s)  | Sets high<br>level<br>business<br>vision  | Defines high-<br>level, value-<br>adding activities<br>(primary and<br>secondary)   | Can deploy high-<br>level objectives and<br>processes (e.g., users<br>requirements) into<br>detailed tasks and<br>systems requirements   |
| Main<br>Weakness(es) | Difficult to<br>translate<br>these into<br>detailed<br>processes or<br>system<br>requirements | Does not generate<br>high-level vision;<br>difficult to<br>translate value-<br>adding activities<br>into system<br>requirements | Difficult to generate<br>initial business vision<br>and high-level value<br>chain  |

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