

BSC-Based Framework for E-Business Strategy

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INTRODUCTION

E-business is far more about strategy than technology (Raisinghani & Schkade, 2001). An effective e-business strategy is concerned with e-business multidimensional characteristics associated with different levels, parties, elements, and growth pattern features (Bakry & Bakry, 2001). In the process, the strategy must incorporate the effects of the instant and global Internet communication mechanism on the company's business management architecture. The global reach and interconnectivity of the Internet have spawned new models of e-business strategy and radically transformed existing ones (Pant & Ravichandran, 2001). Indeed, what distinguishes many of the dot-coms is not their new technical power, but the radical new business models (Hamel, 2000).

Aided by such innovative e-business models, managers will be able to identify the major decision factors involved in their business strategies and generate strategies that would improve their overall performance and profitability. In the current context, four essential perspectives are identified to be associated with an e-business strategy: financial, customer, internal processes, and learning and growth. These four perspectives were first introduced in early 1990s as the balanced scorecard concept (BSC) (Kaplan & Norton, 1992). Because the BSC methodology explicitly focuses on links among business decisions and outcomes, it is intended to guide strategy development, implementation, and provide reliable feedback for management control and performance evaluation. This BSC rationale is thereby appealing to managers who face new challenges in the current turbulent e-business climate.

The real challenge is to determine how the BSC can be successfully applied in the context of e-business's constantly changing environment of interdependencies (Hasan & Tibbits, 2000). E-business introduces new business objectives and strategies and the old measures of success may no longer apply. It is anticipated that the departure from the original BSC for a strategic e-business management framework would be more radical than the existing BSC adaptations (e.g., Martinson's balanced IS scorecard; Martinsons, Davison, & Tse, 1999).

BACKGROUND

Few, if any, precise and complete e-business strategy models are available from the literature (Dubosson-Torbay, Osterwalder, & Pigneur, 2001). There are a few theoretical academic studies with some empirical evidence on e-business models success (Horsti, Tuunainen, & Tolonen, 2005). Generally, these e-business model studies fall into two categories: subsystem research and generic frameworks. Examples of the subsystem research include modeling for price structures (Liu, Wynter, & Xia, 2003), customer needs (Olsson & Karlsson, 2003), process synchronization (Park, 2002), and knowledge sharing (Koh & Kim, 2004). Since these subsystem models deal with a particular aspect of e-business, they do not offer a global and complete view of e-business strategy.

There are several generic frameworks for the development and analysis of e-business models. Whelan and Maxelon (2001) proposed that an e-business architecture requires product, channel, customer management, resource management, and information elements. Afuah and Tucci (2001) presented a more detailed list of components including scope, customer value, revenue sources, connected activities, and so forth, but like Whelan and Maxelon, they did not specify the interrelationships. Hamel (2000) specified a complete four-part framework with bridge components that is geared toward guiding strategic choices of management. Similarly, Dubosson-Torbay et al. (2001) used a framework with four principal components to analyze e-business: product innovation, customer relationship, infrastructure management, and financial aspects. Going beyond the segment frameworks, De, Mathee, and Abraham (2001) developed a pragmatic framework that offers different perspectives for the analysis of e-business including transaction costs, switching costs, infrastructure investment, and revenue models and so on.

For the most part, the generic models offer theoretical, not analytical, decision guidance for practitioners. One exception is the BSC-based e-business framework, with preliminary empirical evidence, proposed by Hasan and Tibbits (2000). Their empirical evidence, which was gathered from a case study in an Australian state-government

utility, gave four high-level perspectives but no specific and explicit measures with each perspective. Currently, there is no comprehensive and concrete investigation that applies the traditional BSC to e-business strategy.

EBBSC FRAMEWORK SPECIFICATION

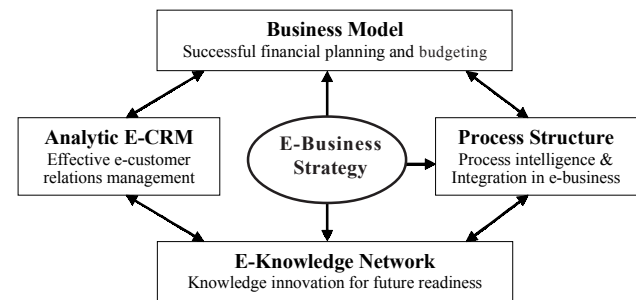
Considering a wide range of factors and relationships in this fast-changing e-era, we adapt the original BSC methodology into a comprehensive e-business strategy framework (EBBSC) consisting of four updated perspectives: business model, analytical e-CRM, process structure, and e-knowledge network (see Figure 1). The EBBSC framework links business strategies to a broad range of innovations and measures, examines important business issues facing e-business managers, and provides a complete view of e-business strategies. The framework can be better understood by examining the components in detail.

Business Model Perspective

Although e-business models differ from the traditional brick and mortar models in various ways, the fundamental needs of consumers and businesses remain much the same. Consumers want the best deal by price and service comparison, while businesses want to grow sales by targeting the right e-shoppers. On the other hand, traditional rear-view and static planning and budgeting cycles don't measure up to the dynamic, competitive, and compressed business cycles in the global e-era. E-business managers need to focus on a future-oriented profit maximization strategy that will support on-the-spot decision making at the turning points.

- **Profit Maximization:** Profit is equal to the difference between the revenue and cost. Many intangible and tangible factors may affect profit by influencing revenue and cost directly or indirectly, creating risk or uncertainty in achieving the company's profitability (Palmer & Wiseman, 1999).
- **Revenue Increase:** Revenue increase refers to expanding and re-pricing product and service offerings to achieve a higher value added mix. According to economics theory, revenue equals the product of the purchases and price. Purchases equal the minimum of the product quantity offered (quantity supplied) and quantity customers are willing and able to purchase (quantity demanded). Quantity demanded is treated as a function of the customer retention, marketing mix, and competition. Customer retention measures the company's customer stickiness or

Figure 1. Adapted four perspectives of e-business strategy



loyalty. The marketing mix includes the company's major marketing decisions. Competition represents the rivalry between the company and other businesses in the target market. Determinants of the quantity supplied include price, capacity, supply chain management efficacy, and staff proficiency. E-business capacity measures not only the limit imposed by the equipment and/or available personnel, but also the limit associated with the network technology. Supply chain management efficacy refers to the effort of the company in managing relationships with its suppliers.

- **Cost Reduction:** The Internet age enables businesses to reduce unnecessary or redundant buyer-seller costs. Generally, cost is composed of fixed cost, which in an e-business context can include e-business system development and maintenance expenses, and variable cost, which equals the product of unit cost and quantity supplied.
- **Marketing Mix:** Marketing effort helps in identifying market opportunities and generating marketing strategies that support attainment of e-business objectives. The major factors involved in the marketing mix include people, promotion, price, product, presentation, and distribution effort. The original "Place" factor is decomposed into presentation and distribution effort to represent e-market reality. Presentation refers to the effort involved in online product presentation and distribution. Distribution effort facilitates the connection of the product with the target customer.
- **Sales Cycle Shortened:** The sales cycle consists of the time that elapses between the customer interest and the purchase decision. In e-business, a shorter sales cycle enables management to respond promptly to emerging opportunities or threats. The major factors that impact the sales cycle include the customer profile, product, price, promotion, and presentation. A customer profile is a composite vari-

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