

# Chapter 20

## Proposed Framework for Research in the Triple A (Agility, Adaptability, Alignment) in Supply Chains<sup>1</sup>

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### ABSTRACT

*In the rapidly changing global business environment, it can be seen that supply chain designs based solely on efficiency and speed do not necessarily lead to a sustainable competitive advantage. According to Lee (2004), this can only be done if supply chains are designed to incorporate the Triple A: Agility, Adaptability and Alignment. Although Lee provided some examples, to date his claim has not been empirically tested, which is essential. A number of studies have looked at the three component parts of the Triple A separately, but as yet no studies have focused on all three Triple A components concurrently, or on the impact they have on business performance. The main aim of this chapter is to determine the dimensions and factors that characterize these variables, in order to empirically test the accuracy of Lee's claim.*

### INTRODUCTION

The current business climate is characterized by constant changes in customer requirements, technology and social and economic factors, in a globalized and intensely competitive environment.

This means that it is increasingly difficult for companies to improve their performance and achieve competitive advantages (Christopher, 2000; Stevenson & Spring, 2007; Sharifi & Zhang, 1999; Yusuf, et al., 1999). Firms with global operations and suppliers and customers located in any part of the world have been forced to seek new ways of managing their operations outside the strict limits

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of the individual company, and supply chains have come under increasing scrutiny. In the struggle to achieve sustainable competitive advantages that enable rapid adaptation to customers' preferences and greater cost-effectiveness, there has been a shift from competition between companies to a framework in which it is supply chains (SCs) that compete with each other (Johnson & Pyke, 2000; Christopher 2000; Ketchen & Guinipero, 2004; Boyer, et al. 2005; Ketchen & Hult, 2007). As a result, companies should not set their business goals and strategies individually, but should instead focus on global Supply Chain Management (SCM), as a whole, as a means of adding value to goods and/or services.

Global SCM can help firms improve the competitiveness of their supply networks, which should in turn increase competitiveness and benefits for all parties involved, by making a more efficient use of resources to achieve the final customer service goals, improved relationships between supply network members, more precise planning and control of materials and information flows from suppliers to end users, reduction of supply network inventories, and lead time compression (Ellram, 1991; Cooper & Ellram, 1993; Cooper et al., 1997a; Simchi-Levi et al., 2000; Romano 2003). An increasing number of studies have looked at this phenomenon and examined the effect of SCM on company performance (e.g. Stevens, 1990; Vickery et al., 1999; Christopher, 2000; Power et al., 2001; Gunasekaran et al., 2001; Frohlich & Westbrook, 2001; Rosenzweig et al., 2003; Cagliano et al., 2004; Bagchi et al., 2005). Results have shown that the greater the integration of global supply chain members, the greater the improvement in performance, both of the supply chain and of the companies themselves.

Most companies that seek greater competitiveness through global SCM are primarily seeking to bring down costs and increase speed. However, despite the fact that there are global SCs that have managed to achieve greater speed, few seem to achieve sustainable competitive advantages over

their rivals (Lee, 2004). Why is this? Lee (2004) claims that firms that only seek speed and lower costs do not respond favorably to unforeseen changes in supply and demand. Accordingly, supply chain efficiency and even speed are insufficient for securing a better competitive position than rivals. Lee goes on to state that, for a supply chain to achieve high performance and a sustainable competitive position, it needs to have all three elements of the Triple A: Agility, Adaptability and Alignment.

Lee's (2004) claims are based on his own experience in a number of companies. However, he does not conduct any kind of formal empirical research to confirm his hypothesis, nor does he set out the precise factors that are required to make a firm more agile, more adaptable and better aligned. These are essential steps for constructs to be built and an empirical study to be done. In fact, there are discrepancies on the conceptual level in the literature regarding the definition of each of these three variables. And, as will be seen below, no earlier studies have analyzed these three features jointly, although a few papers analyze one or two of these variables and their relationship to performance, including a) agility (e.g. Christopher, 2000; van Hoek et al., 2001a); b) adaptability (e.g. Bordoloi et al., 1999; Tuominen et al., 2004); c) alignment (e.g. Piplani & Fu, 2005; McAdam & McCormack, 2001); d) agility and adaptability (e.g. Katayama & Bennett, 1999; Swafford et al., 2006), and e) agility and alignment (e.g., Ismail & Sharifi 2006). There are also discrepancies on a conceptual level regarding the definition of these three variables.

A prior step to conducting research to either confirm or reject Lee's (2004) claim is conceptual development of the concepts, dimensions and factors that define agility, adaptability and alignment in the SC. This is the justification for this chapter, which will be structured in following sections. The first section sets out the chapter's goals and the methodology used. The second analyzes the dimensions and factors that define agility in SCs.

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