

# Chapter I

## A Holistic Approach for Enterprise Agility

**Nancy Alexopoulou**

*University of Athens, Greece*

**Panagiotis Kanellis**

*University of Athens, Greece*

**Mara Nikolaidou**

*University of Athens, Greece*

**Drakoulis Martakos**

*University of Athens, Greece*

### ABSTRACT

*Efficient response to change, both upon expected and unpredicted contingencies, is a critical characteristic for modern enterprises. This chapter presents the various ways this feature has been addressed in the literature and explains why the term “enterprise agility” has been adopted for characterizing this capability. Furthermore, it provides a holistic approach for analyzing enterprise agility that is based on an introduced viewpoint-oriented Enterprise Architecture. The ultimate target is to provide the means for researchers to explore enterprise agility in a systematic way and identify a number of important issues regarding the attainment of such capability.*

### INTRODUCTION

Nowadays, organizations operate in highly turbulent environments having to cope with a frenetic pace of change (Rockart et al, 1996). Globalization

and continual technological evolution are the main drivers of this turbulence. Other change factors include political issues, deregulation, consolidation in the business network, etc. (Oosterhout et al. 2006). As firms continuously sense opportunities

for competitive action in their product-market spaces, it is agility which underlies firms' success in continuously enhancing and redefining their value creation in highly dynamic environments (Sambamurthy et al., 2003).

Indeed, agility has been recognized as a key characteristic of a modern enterprise. It has been therefore the concern of a plethora of researchers who have identified that agility is of a polymorphous nature and cannot easily be attained. To explore the concept of enterprise agility taking into consideration all necessary aspects, we propose an approach that is based on a viewpoint-oriented *Enterprise Architecture*. The term *Enterprise Architecture* as employed in this chapter is in contrast to enterprise architecture as perceived by IFEAD (<http://www.enterprise-architecture.info/ifead%20about.htm>) or Zachman framework (Zachman, 2004) where IT is considered the focus of attention. Our approach treats all perspectives, for example people, business process and information systems, as of equal importance. This is necessary for a proper examination of enterprise agility, as any partial approach will not be able to identify all the parameters necessary for an enterprise to be deemed agile.

Through this viewpoint-oriented architecture and the proposed approach, we provide a structured method for a holistic analysis of enterprise agility, aiming at helping researchers to identify issues or requirements for the attainment of agility. This chapter provides such an analysis through which a number of important agility issues are identified.

The chapter is structured as follows: First a literature review is provided which leads to the deduction of useful conclusions regarding agility. Then, the viewpoint-oriented Enterprise Architecture and the proposed approach are presented. The following two sections demonstrate the approach. The last section wraps up the chapter with some concluding remarks.

## LITERATURE REVIEW

Enterprises able to respond efficiently to change are characterized by different terms in the literature, such as *flexible organizations*, *agile enterprises*, *adaptive enterprises*, *sense-and-respond enterprises*, and less often, *intelligent enterprises*.

The term *flexible organization* is introduced by Leeuw and Volberda (Leeuw and Volberda, 1996) who describe organizational flexibility through synonyms such as *mobility*, *responsiveness*, *agility*, *suppleness* and *litheness*. Based on system control theory, they have developed a definition for organizational flexibility according to which "*flexibility is the degree to which an organization possesses a variety of actual and potential procedures, and the rapidity by which it can implement these procedures, in order to increase the control capability of the management and improve the organization and the environment*". Evans (Evans, 1991) denotes that flexibility is the ability to do something other than what was originally intended, emphasizing thus the ability to respond to unforeseen changes as well. Evans characterizes flexibility as a polymorphous concept and analyses it by relating it to other similar concepts, most notably *adaptability*, *agility*, *versatility*, *resilience* and *malleability*. Evans distinguishes two types of flexibility in terms of intention, namely *offensive* and *defensive flexibility*, and two types in respect to time, namely *ex ante* and *ex post flexibility*. Offensive flexibility concerns creating and seizing an initiative, while defensive means guarding against predatory moves or correcting past mistakes. Ex ante flexibility involves in advance preparation for future transformations, while ex post concerns adjustments that take place after a triggering episode has occurred. Golden and Powel (Golden and Powel, 2004) define flexibility as the capacity to adapt and specify four flexibility dimensions; *temporal*, *intention*, *range* and *focus*. The first denotes how long it takes for an organization to

16 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/holistic-approach-enterprise-agility/20268](http://www.igi-global.com/chapter/holistic-approach-enterprise-agility/20268)

## Related Content

---

### Feral Systems and Other Factors Influencing the Success of Global ERP Implementations

Don Kerr (2011). *Enterprise Information Systems: Concepts, Methodologies, Tools and Applications* (pp. 1748-1767).

[www.irma-international.org/chapter/feral-systems-other-factors-influencing/48642](http://www.irma-international.org/chapter/feral-systems-other-factors-influencing/48642)

### Estimating the Impact of ERP Systems on Logistics System

Dimitris K. Folinas and Emmanuel H. R. Daniel (2012). *International Journal of Enterprise Information Systems* (pp. 1-14).

[www.irma-international.org/article/estimating-impact-erp-systems-logistics/70012](http://www.irma-international.org/article/estimating-impact-erp-systems-logistics/70012)

### Enterprise Resource Planning (ERP): Past, Present and Future

Ronald E. McGaughey and Angappa Gunasekaran (2007). *International Journal of Enterprise Information Systems* (pp. 23-35).

[www.irma-international.org/article/enterprise-resource-planning-erp/2123](http://www.irma-international.org/article/enterprise-resource-planning-erp/2123)

### Phishing Attacks and Countermeasures: Implications for Enterprise Information Security

Bogdan Hoanca (2007). *Advances in Enterprise Information Technology Security* (pp. 221-238).

[www.irma-international.org/chapter/phishing-attacks-countermeasures/4799](http://www.irma-international.org/chapter/phishing-attacks-countermeasures/4799)

### A Theoretical Framework for a Simulation-Based Analysis of Supply Chain Risk Management

Ruslan Klimov, Yuri Merkuryev and Juri Tolujew (2010). *Managing Risk in Virtual Enterprise Networks: Implementing Supply Chain Principles* (pp. 162-183).

[www.irma-international.org/chapter/theoretical-framework-simulation-based-analysis/42220](http://www.irma-international.org/chapter/theoretical-framework-simulation-based-analysis/42220)