Chapter 5
The Enterprise Architecture Concept

ABSTRACT

The main intention of the Architecture-Governance-Growth (AGG) model introduced by this book is to be a representation of the evolving steps of the modern digital (or digitalized) enterprise. In this section of the book, the first dimension of the AGG model (the architecture realm), how it has emerged as an entrepreneurial concept (embedded in the concept of enterprise architecture), why it is an important and indispensable concept to describe the main components of the digital (or digitalized) enterprise, and how they interact and function are presented. In this chapter, it is argued that the most valuable tool to perform this task is the concept of enterprise architecture, a concept derived from the field of architecture or from the building sector of the economy. The chapter examines how this concept evolved from the concept of information systems and how it is important to the understanding of the concept of market architecture.

1. INTRODUCTION

The Architecture-Governance-Growth (AGG) model introduced by this book is intended to be a representation of the evolving steps of the modern digital (or digitalized) enterprise. This model states that the enterprise’s observable architectural characteristics determine its governance issues, and that the governance agenda of the enterprise determines its measurable growth conditions.

To accomplish such an endeavor, so far this book presented three dominant and distinct views associated to enterprises and markets can be identified nowadays: a) the economic view; b) the management view, and, c) and the more recent information systems view. As seen in Chapters 1 to 3, there are a number of economic theories that describe, explain and predict the nature of the enterprise addressing its existence, structure, behavior, and relationship to the market. There are also a number of views about the way the enterprise should be managed and how its resources could be allocated as a source of competitive advantage. Additionally, there are a number of views that try to find solutions for optimal use of information within organizations (the core of the information systems discipline), for instance to support decision-making processes or day-to-

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The Enterprise Architecture Concept

day operations, covering the whole information cycle: from its content, through its systems and up to its technologies.

In the introductory description of the subject of this book it is observed that in the academic and professional literature a unified framework that could articulate the above distinct, but interrelated, views of the enterprise, was missing. Therefore, Chapter 4 is an attempt to fill this gap. The same Chapter 4, consequently, introduces two novel models, the AID (Analyticsize-Integrate-Decide) model and the AGG (Architecture-Governance-Growth) model, to help academics and professionals to deal with the interdisciplinary context of combining the economic view, the management view, and the information systems view of the enterprise in the digital age.

In this Section 2 of the book it is presented what is named here as the first dimension of the AGG model (the architecture realm), how it has emerged as an entrepreneurial concept (embedded in the concept of enterprise architecture), and why it is an important and indispensable concept (especially in the information age) to describe the main components of the digital (or digitalized) enterprise, how do they interact and function.

2. BACKGROUND

Across chapters 1 to 3 one can see that the enterprise can be analyzed through the lens of several theories and methodologies. For example, through the lens of the standard neoclassical economics, economists see that individuals have rational preferences, and that individuals maximize utility and enterprises maximize profits. Through the lens of the transaction costs theory, economists see that the standard economy theory deals by and large with a world of zero transaction costs, then try to describe a non-zero transaction costs world. Through the lens of the ownership rights theory when the enterprise intends to acquire the assets of another enterprise, it tries to achieve two goals: contracts and decision-rights (involving de assets). Through the lens of the principal-agent theory one sees a relationship where in a contract one or more persons engage another person to perform service on their behalf which involves delegating some decision making authority to the agent.

In sum, through the lens of the economists one can see that there are a number of economic theories that describe, explain and predict the nature of the enterprise addressing its existence, structure, behavior, and relationship to the market. The same can be said when one looks at the enterprise through the lens of the managers and businessmen: there are also a number of views about the way the enterprise should be managed and how its resources could be allocated as a source of competitive advantage. And finally, through the lens of the information systems professionals it is possible to see that there are a number of views that try to find solutions for optimal use of information within organizations, for instance to support decision-making processes or day-to-day operations, covering the whole information cycle: from its content, covering the whole information cycle: from its content, through its systems and up to its technologies.

However, what seems to be missing in this ‘birds eyes voyage’ to understand the enterprise is a concrete analytical tool which could help one to describe what are the main components of the contemporary digital (or digitalized) enterprise, and how do they interact and function. In this chapter it is argued that the most valuable tool to perform this task is the concept of enterprise architecture, a concept derived from the field of architecture, or from the building sector of the economy. The chapter examines how this concept evolved from the concept of information systems and how it is important to the understanding of the concept of market architecture.
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