Chapter 1
Conceptual Theory: What Do You Know?

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ABSTRACT
This chapter will provide the reader with two definitions of knowledge, one at the individual level, the other at the organizational level. This will be followed by connecting the knowledge base of the organization to its sustainable competitive advantage by using a multiple-layer framework of organizational knowledge. Then, the chapter will discuss the frameworks of knowledge management vision, mission and goals for the organization. Temporary and functional gap analysis frameworks will follow. The chapter will end with a brief description of three tools developed by the authors.

INTRODUCTION
This chapter will provide the reader with a number of theoretical aspects that we consider important as a background for understanding and effectively utilizing the later developed subjects related to knowledge management strategy discussed by us later in this book. We will begin this chapter by introducing you to three epistemologies that can and do frame the discussion about knowledge and knowledge management. We will continue by discussing two conceptual aspects of knowledge. We will define knowledge at the individual (personal) level and then at the organizational level. Once these definitions have been solidified, we will place these concepts into a practical application by describing knowledge within an organization’s strategic discussion. In a practical application, it is critical for an organization to understand where their knowledge should be located. Some of this discussion might seem tedious at first, but we hope you will commit to reading through the entire discussion to see for yourself that, while it might sound theoretical or philosophical, it is actually very practical. We hope the examples will illustrate why it is crucial for you to understand the foundation of our tools.
Following that, we will introduce you to vision, mission, and goals for KM as well as gaps. We will close the chapter by briefly introducing three tools that we have developed to make it easier for you and your organization to systematically manage knowledge as a strategic asset to create value. A more in-depth discussion of those tools can be found in this book in chapters 4, 7 and 9.

Knowledge as a Complex and Living System: Three Epistemologies

Knowledge can be viewed from different perspectives (what academics call epistemology¹). The three epistemologies are: the cognitivist view, the connectionist view and the autopoietic view. They are detailed and illustrated in Table 1. We want the reader to realize that there is more than one way to look at knowledge, and that by using the three perspectives you can have more and richer opportunities to use knowledge effectively. You will see the use of these three perspectives again in chapters 4, 7 and 9, within this book.

First Definition of Knowledge

Any discussion of Knowledge Management must begin by defining the terms to be used. We all assume that the reader knows what knowledge is but, in fact, everyone has his or her own conceptual idea of knowledge. That unique conception creates a problem because there is no universally agreed upon accepted definition. As an old story suggests, it’s like trying to understand what an elephant looks like by asking several blind men to describe an elephant based on touching a different part of the animal. Knowledge is many things to many people. Knowledge is not easily understood, managed, or quantified. Indeed, since there is no universally accepted definition of knowledge, understanding, managing, and quantifying are nearly impossible tasks. Through this book, our goal is to show you that there are empirically based measures of knowledge that can be quantified, utilized, and exploited! If we are to be successful, however, we must be assured that the definition of the key terms we are using aligns with the definition you have of the term.

Any definition of knowledge is biased, individualized, and carries with it social, political, and cultural baggage. As we look at common usage today, we find that knowledge, information, and data are as easily interchangeable as cola and “Coke.” One simple way to explore the issue is to look into their definitions in any dictionary. If you do, you will see that the definitions are circular. Each one of the three is defined by the use of the other two terms. The loop feature of the terms can make the distinction between them quite difficult to find. We have developed definitions that clearly demonstrate that these terms are distinct (related, but distinct) entities. We believe that data and information are the building blocks of knowledge. In order to clarify what we mean, we will begin by sharing our definition of knowledge and then will break down the knowledge definition into its actionable components.

Knowledge: an action, or a potential of an action, that creates, or has the potential to create, value based on data or previous knowledge, and/or information.

Data: basic building blocks

Metadata: context of the building blocks, “the baskets”

Information: meaning

In order to understand Knowledge, we have to understand its parts. Assume that data elements are the most basic building blocks of knowledge. Data are entities that are meaningless (like bytes or letters) until there is context or metadata wrapped