Chapter X

Knowledge Management and Organization Design

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This chapter examines the relation between organization design and knowledge management. Choosing a certain organization form implies a way of dealing with knowledge. The adopted strategies for knowledge management must concur with this form. Knowledge management should always constitute a good ‘mix’ of strategies applied in the organization form and its information and communication technology (ICT). A model enables organizations to determine their type and implied consequences for their knowledge management. It offers an explanation of why a specific form of knowledge management will or will not work in certain situations, and suggests measures for an appropriate knowledge management.

INTRODUCTION

Practice indicates that many organizations tend to move toward change and seek a multitude of new collaboration forms. When examining external cooperation, we note an increasing tendency among organization networks to develop into virtual organizations. Internally, a change appears toward teams (often self-directed) and organization forms which bear close resemblance to Mintzberg’s adhocracy (Mintzberg, 1979). Recent publications, usually under the common denominator of network forms and/or virtual organizations, bestow a great deal of thought upon these developments (Hedberg, Dahlgren, Hansson, Olve, 1997; Ten Have, 1997; Mowshowitz, 1997; Peters, Fisart, 1996; Hale, Whitlam, 1997). In conjunction with this, they pay much attention to the ever-increasing role of knowledge in the functioning of individuals and their affiliated organizations (refer to Davenport, 1998). Experts propose strategies within the fields of Organization Design and Information and Communication Technology (ICT) in order to better utilize the knowledge present in organizations and, in addition, to promote its
development. Managers sense that they cannot simply ignore a production expedient of such apparent importance as knowledge. Knowledge must be ‘managed’ and the organization requires a set up which allows the optimal expression of this knowledge.

In this chapter, we focus on knowledge management as a design issue. Although managers and employees do not always realize it, the choice of an organization form implies a certain manner of dealing with knowledge. The adopted strategies in the area of knowledge management must concur with this form. Knowledge management should always constitute a good ‘mix’ of strategies applied in the organization form and its information and communication technology (ICT), supplemented by specific HRM aspects (which will not be described in this chapter). The organization-design ‘building blocks’ proposed in this chapter are not new in themselves. However, the perspective on knowledge management does result in a new line of approach. Viewing the organization as a knowledge-processing system enables us to analyze and explain why the importance of the knowledge management and its structure is dependent on factors in the environment as well as the management model and organization form associated with these factors.

In the second section, we will briefly explain the concept of knowledge and of the creation and processing of knowledge within organizations. Next, we will present a model which sheds light on the role of knowledge in different types of organizations. The organization types, each dealing in different ways with knowledge, are distinguished on the basis of their degree of complexity and variability.

The elaboration of our model indicates that each of these types requires a different knowledge management structure. Forms such as the virtual organization will play a significant role in knowledge management, specifically in the case of organizations and networks in a highly dynamic environment. The model presented in this chapter is not static; it allows migration between the various quadrants. The dynamics have a strong influence on organization design and knowledge management.

This chapter closes with a number of implications and recommendations.

**KNOWLEDGE**

There have been many publications on knowledge in recent years. Almost all authors fail to define knowledge in absolutely clear terms, or they suggest that we adhere to the concept as defined in everyday life. By doing this many publications avoid the differentiation between implicit and explicit knowledge (Nonaka, 1995; Choo, 1996; Den Hertog & Huizinga, 1997). We presume the reader is familiar with the substance of this concept.¹

HAK company is a Dutch market leader in the industry of glass-jar conservation of vegetables and fruit. At first sight this would seem to be a ‘low tech’ (knowledge utilizing) rather than a ‘high tech’ (knowledge creating) industry. The quality and food-safety is, however, extremely critical. Until recently, detection devices with which to trace product-contrary elements in a closed jar, such as glass splinters, did not exist. This firm has taken the initiative to construct this device. A search was conducted for technologies which would enable a very precise detection. HAK decided on advanced X-ray technology and image-recognition techniques, originally applied by the U.S. defense industry in the design of cruise missiles. HAK made contacts with suppliers of
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