# Chapter XX Strategic Knowledge Management in Matrix Multinational Organizations

Alan M. Thompson Production Services Network Ltd., Scotland

## ABSTRACT

This chapter looks at managing knowledge workers within the business environment of a matrix-organized multinational organization, using oil and gas contractor Production Services Network for illustration. It looks at the influence of business needs, and human and organizational culture and strategic factors on KM; the importance of communicating business drivers; and adverse demographics; it also outlines some future trends that managers and KM staff in multinational matrix organizations should be preparing for. It is hoped that discussing examples of KM in practice, within the context of globalization, demographic changes, and rapid developments in technology, markets, and business relationships, will ground some familiar theory in some new and evolving territory, providing interest to both academics and practitioners.

# INTRODUCTION

This chapter looks at managing knowledge workers within the business environment of a matrix-organized multinational organization. The organization Production Services Network (PSN) is used for illustration purposes. PSN provides operational support within the global oil and gas industry, and faces that industry's challenges of cyclical demand; an aging workforce; the need for highly skilled, highly mobile workers; and rapid technological development. The matrix model within PSN takes the form of staff and contractor workers reporting to both a functional head, who is a discipline specialist, and an assignment manager, who is a business specialist. Managing knowledge workers within this context presents both opportunities and obstacles. This chapter looks at how PSN's knowledge management team negotiates these, with reference to some of the latest literature on the subject. It looks specifically at how each company's distinct business imperatives for managing knowledge influence how they manage their knowledge workers, with particular reference to PSN; human and organizational culture, and strategic factors; the importance of communicating business drivers; and adverse demographics. An outline is offered of some future trends for which managers and KM staff in multinational matrix organizations should be preparing.

# BACKGROUND

Matrix organizations have been around for much longer than knowledge management as we know it today. Within PSN, the reasons for organizing the company on matrix principles stem from the nature of the business. PSN provides oil and gas companies with operational support for their production platforms and processing facilities around the world. For more than 20 years, the company was a wholly owned subsidiary of the global support company KBR, in turn part of the Halliburton Company, headquartered in Houston, Texas. PSN was purchased by its management team in May 2006 and continues to operate on a global basis from its headquarters in Aberdeen, Scotland. PSN has experienced considerable expansion over the last five years, mainly by developing its non-UK business. It has around 7,000 employees working in more than 20 countries across five continents and is organized on the matrix principle to provide the core business services of engineering, maintenance, and operation services to customers. The matrix principle gives the company necessary flexibility.

The oil and gas industry is cyclical (Yergin, 1991). For the support sector of the industry, this means managing the peaks and troughs associated with not only the oil price, but with varying demand for gas, which has become more of an internationally traded commodity in recent times. Cyclicality also affects asset maintenance and modifications, as the discovery of new oil fields has slowed but not ceased, while increased innovation is required to extend the production life of existing older fields. In light of this cyclicality, there is a business need to move people and sometimes the execution of activities around efficiently, while ensuring all people are all suitably competent, experienced, and informed for each project assignment. A project assignment is the industry term used to describe a group of people with a wide variety of skill sets dedicated or assigned to support a particular oil or gas production asset or group of assets for a particular client. The cornerstone knowledge management practice of using previously learned methods to inform the solutions of the future is particularly relevant to this mobile workforce; how this relevance interacts with workforce perceptions will be discussed later.

The matrix management model offers flexibility because the dual line responsibility arrangement of people reporting to both a function head and a project assignment leader ensures a reliable supply of competent people, conversant with the organization's methods on project assignments. It permits relatively rapid updating and dissemination of improved working practices, because there is a desire by functional heads to ensure their people are kept up to date, while the assignment leader keeps focus sharply on the specific demands of the contract with the customer. The driver for the functional heads is associated with work practices, improvements, and increased competencies, and tends towards a medium-term horizon; for the project assignment manager, the main focus is on the delivery of his or her particular project assignment goals, mostly on a shorter timescale.

Modern matrix organizations tend to be relatively 'flat' organizations, which frequently are observed to have a middle-management layer populated by fewer people, many of whom have become overburdened in more recent times and who have little spare time. If we factor in that this industry also has a relatively high proportion of short-term contract workers, the reader may begin to understand the sometimes conflicting complex10 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-

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