IDEA GROUP PUBLISHING

1331 E. Chocolate Avenue, Hershey PA 17033-1117, USA
Tel: 717/533-8845; Fax 717/533-8661; URL-http://www.idea-group.com

Enterprise Information Portal Implementation: Knowledge Sharing Efforts of a Pharmaceutical Company[1]

Alison Manning and Suprateek Sarker
Washington State University, USA

EXECUTIVE SUMMARY

This case study provides a detailed account of the formation of a knowledge management (KM) division within a multinational pharmaceutical company, and the subsequent undertaking of the first major KM project, which involved the implementation of a portal software technology. Specific issues discussed include rationale for replacing the existing intranet with portal technology, selection of the portal, justification for this selection, challenges in organizing and linking documents, as well as the social and behavioral factors influencing the implementation. A number of dilemmas and tradeoffs are presented with respect to each of the issues.

COMPANY BACKGROUND

PharmaCo is a large multinational drug research company conducting a broad spectrum of pharmaceutical research. PharmaCo has successfully marketed drugs in several disparate therapeutic areas such as arthritis, cancer, diabetes and schizophrenia. While the patent of PharmaCo's highest revenue-generating drug is soon to expire, the company still has other modest revenue-generating drugs on the market. With five different promising drugs at various stages of clinical trials, PharmaCo's drug pipeline outlook is viewed as reasonably favorable. However, despite a promising drug pipeline, PharmaCo anticipates that investor favor will decline when the patent on their strongest drug product expires.

Founded in 1962, PharmaCo today is a well-known corporation that has resulted from a merger of two medium-sized pharmaceutical companies in 1989 and the subsequent acquisition of a small biotech company in 1996. As a result of the merger and the acquisition, PharmaCo is a complex organization with various offices throughout the United States as well international sites in Canada, Latin America, Europe and Japan. Research and development (R&D) efforts take place in all locations, whereas business functions that support the overall organization such as human resources, finance, accounting, information technology, marketing, and legal are centralized in Tucson. While most of the business in the company is conducted in English, the scientists

performing research in international locations tend to use both English and their native languages (as necessary) in their official communications.

PharmaCo is in an industry that is very competitive with numerous players vying for increased market share. Generally, market share is calculated from a drug or therapeutic area perspective, rather than from a vertical industry perspective. Since it is a highly fragmented industry, even the largest players that are considered Tier 1 companies have only 3-5% overall market share. While biotech companies are seen as part of the competition for PharmaCo, the medium to large pharmaceutical companies are believed to be its primary source of competition. The largest five players are viewed as Tier 1 companies, while mid-sized ones are seen as Tier 2 companies. The Tier 2 companies are often considered more innovative, and some of these companies attempt to strategically utilize technology in order to try to climb into a Tier 1 spot. PharmaCo is viewed by its competitors and industry analysts as a Tier 2 company with an approximate market share of 2%. However, PharmaCo has a market share of 70% in the schizophrenia therapeutic area, due to their largest revenue-generating drug. PharmaCo's second-largest revenue-generating drug is minor in comparison, with only a 30% market share in the arthritis therapeutic area. This lower market share is attributed to the more severe side effects of PharmaCo's arthritis drug compared to those associated with the drug manufactured by its direct competitor.

R&D is the core business focus of PharmaCo, as is characteristic of most companies in the pharmaceutical industry. A strong drug pipeline is essential to the success of drug research companies; however, the investment in both time and money to develop this pipeline is substantial. The time between the discovery of a molecule or compound to the launch of a marketable drug takes an average of 9 to 13 years. In fact, the typical cost to bring a drug from its R&D infancy to FDA approval is approximately $500 million. The cost to bring a drug to market is so phenomenally high that revenues from only 3 out of 10 drugs meet or exceed the average cost of research and development (Appendix 1).

The drug development cycle is relatively consistent among all pharmaceutical companies, and includes stages of: 1) discovery (research and development), 2) clinical trial phases I/II/III/IV, 3) FDA approval, and 4) manufacturing and marketing (Appendix 2). In order to reduce the time taken to market a particular drug, the pharmaceutical companies have to reduce the time taken in the discovery and the clinical trial phases. Discovery, in particular, takes an incredible amount of time and effort before it can reach the clinical trials stage. Many individuals from various departments within a pharmaceutical company are involved in the discovery phase. Since the drug development process is so time-intensive and expensive, pharmaceutical companies strive to reduce this time in order to obtain a competitive advantage.

SETTING THE STAGE

Formation of the KM Group

In an effort to reduce the drug development cycle, PharmaCo recently created a Knowledge Management (KM) group within the Information Technology (IT) department. Dan Kramer, the Chief Technology Officer (CTO) of PharmaCo, was the driving force behind the creation of the KM group. Dan's rationale for the formation of the KM group was that researchers, as well as employees in other business units, would benefit (in terms of research and decision-making) from increased access to both internal and external information. Dan believed that this improved access to information would lead to the reduction in time to bring a drug to market by improving communication among different divisions and business units, as well as by improving the information flow throughout the drug development cycle. Dan stated, "Improved access to information will help to reduce the duplication of research and work efforts which are so common within an organization of this size and help to reduce the drug development cycle time."