

Impacts of Intranet on PDO

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INTRODUCTION

In developing countries such as Oman, the introduction of information technologies is very recent and their use and effect have not been systematically assessed or evaluated. Despite the importance of this subject to researchers and practitioners, the issue of evaluating and assessing the benefits of intranet is still an area that requires further and vigorous research (Blanning & King, 1998). The main aim of this chapter is to evaluate and assess the impact of intranet on one large Omani organisation. The findings are based on an in-depth case study looking at the evolution and the progress of the use of an intranet. The case study basically examines the impact that the use of an intranet has had to date and is likely to have in the next few years on one of the earliest organisations to adopt it in Oman. The impact model presented is a theoretical contribution that can guide other Omani organisations in benefiting from an intranet. Furthermore, the impact model prescribes the factors that need to be considered when implementing an intranet system.

DEVELOPING COUNTRIES CONTEXT

In developing countries such as Oman, the introduction of information technologies is very recent and traditionally, the preferred way of communication and knowledge conversation within a developing country organisational context is the face-to-face meeting. Furthermore, the organisational hierarchical structure is characterised by its rigidity and consequently, information flows from top to bottom (Al-Gharbi, 2001).

A number of studies have reported many obstacles prohibiting developing countries from benefiting from using Internet technologies that need to be considered, such as organisational culture, awareness, education, language, and social and psychological factors (Sharma, Wickramasinghe, & Kitchens, 2002).

The success of intranet will be closely linked to the potentialities of change in a culture to take full advantage of the technology. The culture that is intensively op-

posed to change, or is hostile toward or suspicious of outsider customers allowed directly to access, interact, and do business transactions with the company systems, must alter their ways and create a new culture in order to reap up the benefits and the rewards of intranet. The challenge of creating such a culture is not an easy job that can be left out to die (Al-Gharbi, 2001). However, management support, training, and organisational culture change are tools to minimise resistance and motivate employees to use the system, as we will see in the case of PDO (Petroleum Development of Oman).

PETROLEUM DEVELOPMENT OF OMAN

Petroleum Development of Oman is one of the largest companies in Oman, with more than 5,000 employees. The Omani government owns 60% of the company and the rest is divided between the Shell Petroleum Company Limited (34%), Total (4%), and the Partex Oman Corporation (2%). The daily oil production of PDO is 800,000 barrels, and the recoverable reserves amount to 5 billion barrels. The company adopted an intranet in early 1996 and currently has 4,500 intranet users.

RESEARCH METHODOLOGY

The qualitative approach is particularly suitable for studying phenomena in which little previous research has been conducted and it is not supported by a strong theoretical base (Benbasat, Goldstein, & Mead, 1987; Walsham, 1995). In addition, Walsham suggests that the case study is the preferred method in investigating the use of information technology in social context, and it can yield rich insight. Furthermore, McBride (1997) stated that to understand the evolution and the progress of information systems, it is far better served by a qualitative approach. The case study offers deep and rich insight, and understanding can be achieved rather than in using a quantitative approach.

In line of the above recommendations, a case-study approach based on frequent visits and face-to-face interviews has been used. The data were collected in two phases: first, through casual conversations and in-depth, informal, and unstructured interviews with PDO staff, which took around 2 weeks; second, through semistructured interviews. Interviews were conducted over a period of 6 months with key participants responsible for intranet adoption and development in the company.

MOTIVATIONS FOR THE INTRANET ADOPTION

One of the main hurdles facing PDO was how to effectively communicate and share information and knowledge with different individuals and groups inside and outside the country without increasing the costs. Thus, PDO has adopted an intranet in order to achieve the following goals: to improve communication and provide a means by which to help knowledgeable employees from different departments and locations to share information and knowledge; to share knowledge, resources, and expertise with the Shell group; to reduce costs; to eliminate duplication and redundancy of information; to enable cross-platform compatibility; and to improve business processes.

THE INTRANET IMPACT MODEL

Most of the research on intranet adoption to date concentrates on organisations in the developed countries (Curry

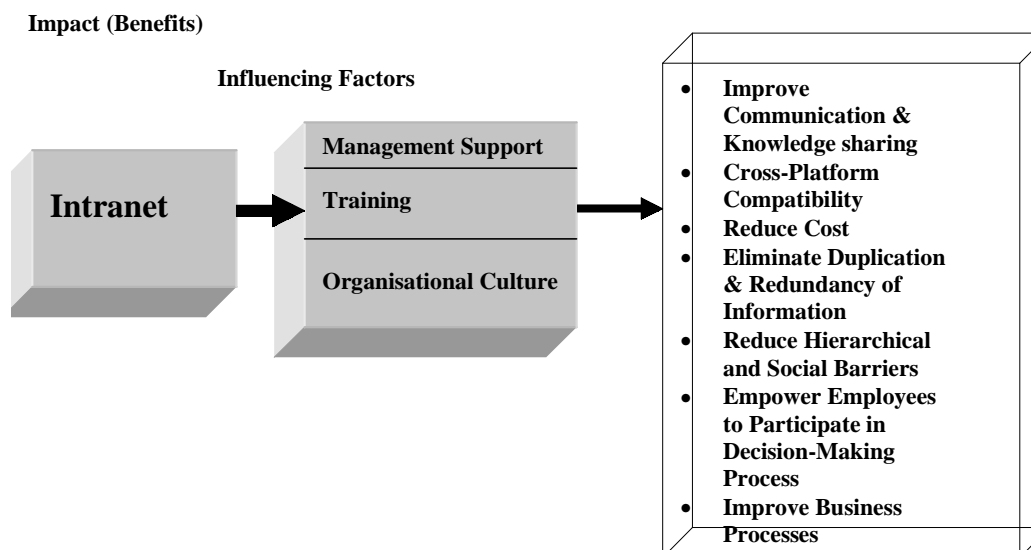
& Stancich, 2000; Davies, 2000; Hansen, Nohria, & Tierney, 1999). Among these articles, there is evidence to suggest that intranet has had an impact upon many business aspects and processes. For example, intranet improves access to updated information, improves communication, enables knowledge sharing and IT integration, flattens organisational hierarchies, reduces costs, improves decision making, empowers users, and facilitates organisational knowledge and learning. Furthermore, Callaghan (1998) states that intranets have broken down internal divisional barriers to communication.

The intranet impact model presented in Figure 1 shows that this technology has affected many processes and business aspects. In the following sections, each component of the impact model is discussed.

INTRANET IMPROVES COMMUNICATION AND KNOWLEDGE SHARING

PDO has 4,500 users who use its intranet to share, not only static information, but dynamic knowledge about engineering, oil exploration, and safety procedures. According to a senior manager, "The intranet enables our employees to know where to go to find what they need to know regardless of location and time barriers." The benefits can be accrued when one department is able to take advantage of the experience and understanding of another in the organisation. An organisation would have different entities of knowledge generated over the years by various groups and departments. These various and separate bodies of knowledge can be combined and shared

Figure 1. The intranet impact model



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