Chapter 26
An Empirical Examination of the Role of Environmental Accounting Information in Environmental Investment Decision-Making

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Abstract An experiment is used to investigate two important factors associated with environmental investment decision-making by managers: the regulatory regime in which the firm operates and the nature of environmental information used as a decision aid. Two regulatory regimes are examined, a command and control regulatory regime and a voluntary self-regulatory regime. Two accounting systems are contrasted, environmental management accounting and conventional management accounting, thereby providing a 2 × 2 experimental design for the empirical study. The paper considers environmental investment decision-making by different types of managers working in the Australian offshore petroleum industry. These empirical results indicate that environmental accounting information has a more significant influence on the willingness of managers to incorporate environmental considerations into investment decisions and to avoid future environmental risks, than does the type of regulatory regime.

26.1 Introduction

Most investors have a keen focus on the financial benefits from their investments (Fayers 1999). However, as social values change and environmental awareness grows, investors and corporate managers are beginning to identify the potential role of investment in assisting moves towards ecologically sustainable development (Young 1992). Such moves have lead to the concept of socially responsible investment, also called sustainable investment or ethical or environmental investment, which can be defined as:

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The process that considers the social and environmental consequences of investments, both positive and negative, within the context of rigorous financial analysis and meets certain baseline standards of corporate social responsibility (O’Rourke 2003).

Burritt (2004:29) points to a gap in the literature and suggests that there remains a need for:

Additional research studies…that…provide relevant environmental information for practical decisions that involve corporate environmental impacts … and incorporate long-term (strategic) considerations in the corporate decision making, planning and control process.

Investment decisions typify such long run decisions. Previous studies identify a complex range of factors that influence the impact of environmental issues on investment decision-making by business managers. These include: the regulatory climate or environment in which the firm operates (Earnhart 2004; Yishai 1998; Gunningham and Rees 1997), the types of information strategies used to assist in management control and decision-making (Eisner 2004; Schaltegger and Burritt 2000), managerial interpretations of environmental issues (Ness and Mirza 1991) including environmental values, the level of the manager’s knowledge (Fryxell and Lo 2003) and management’s overall strategy (Al-Tuwaijri et al. 2004; Eisner 2004), the influence of social control (ANZECC 1998), regulatory costs such as pollution charges and mandatory clean-up costs (Thomas 1995; Joshi et al. 2001) and stakeholder opinion including the role of non-government Organisations and industry Organisations as third parties (Gunningham and Rees 1997; Eisner 2004; Scott 1995). From this complex array of variables two have been chosen for detailed analysis—the regulatory regime and the environmental information strategies used and their possible interaction.

Hart (1997) recognises that: “like it or not, the responsibility for ensuring a sustainable world falls largely on the shoulders of the world’s enterprises, the economic engine of the future … and more importantly, on their management.”

Hence, given the potential importance of enterprises and their management to the environmental impacts of business, the focus here is on enterprises operating in a single industry in Australia—the offshore petroleum and gas industry, an industry with potentially significant environmental impacts. Young (1992) argues that to be sustainable a business should consider the fact that investment is not just about making money. Instead, business needs to search for quality investments that simultaneously improve environmental quality and human living standards. However, deciding upon the projects in which to invest is a difficult process as decision-makers are faced with a complex range of environmental investment variables. In the case of the offshore oil and gas industry these include multiple objectives such as maintaining mangrove and marine biodiversity while increasing the amount of drilling through oil and gas rigs, thereby increasing the discovery and production of oil and gas resources. To further complicate the matter each decision-maker in a team draws on different environmental values, knowledge and cognitive processes to determine the best course of action which affects their willingness to take the environment into account. As success or failure of environmental outcomes rests upon how well investment