Chapter 15
Sustainable Management Accounting Systems for Small and Medium-Sized Businesses

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ABSTRACT
The purpose of this chapter is to provide an overview of environmental and sustainability management accounting (EMA) systems that can be adopted by small and medium-sized enterprises (SMEs). It presents a detailed description of how and why corporate sustainability performance is important for SMEs while placing EMA as a decision support tool to aid sustainability-related corporate strategies. Having discussed various EMA tools and techniques, the chapter also provides an integrative framework for EMA adoption which is based on the evolutionary stages of environmental management. This framework aims to guide SMEs to progress from compliance-orientation towards higher order sustainability outcomes. The chapter stresses the need for the SMEs to continuously take deliberate managerial actions with the support of EMA systems to reach the advanced stages of sustainability in an ever-changing business environment.

INTRODUCTION
The purpose of this chapter is to provide a comprehensive discussion on sustainability management accounting that can be used by small- and medium-sized enterprises (SMEs). SMEs represent the majority of firms in the economic systems of both developed and developing countries (Perrini & Tencati, 2006). Their economic contribution is significant in any country. The role of SMEs is evident on many economic fronts such as the creation of business, provision of employment and promotion of innovation and creativity. For example, according to the European Commission (2017), SMEs represent 99% of all businesses in the European Union (EU). Similarly, in emerging economies, the formal SMEs contribute...
to 45% of total employment and to 33% of national income (World Bank, 2015). These figures can further increase if the contribution of the informal SMEs is taken into account. SMEs act as a prominent source of generating new employment opportunities. As per Savlovschi and Robu (2011), two thirds of the newly created jobs are owned by the SME sector. Further, the costs of creating jobs in an SME are lower when than in a large-scale firm. This helps to reduce the unemployment rates and to address the demographic challenges created by population growth all over the world (Commission for Economic, Social and Territorial Affairs, 2012). Especially in developing economies, SMEs play a major role in poverty alleviation and empowering women and youth (Okpara, 2011; Tambunan, 2011). Since most of SMEs are owned by entrepreneurs, creativity and innovation are often promoted by the introduction of new products, processes, markets and/or new business models (Varis & Littunen, 2010). This helps to create new jobs and satisfy the requirements of customers by providing value-added product and services. Another important facet of SMEs is their ability to counterbalance monopolies and oligopolies by restricting the ability of large firms to dominate the market (Savlovschi & Robu, 2011). Owing to these various beneficial roles, SMEs are usually considered as the engine of economic growth in any country (Aris, 2007; Singh et al., 2008).

Despite the significant role played by these entities, what constitutes an SME is not definitive. There are numerous definitions of SMEs and they largely related to the country and/or the institution concerned. Further, depending on the economic sectors, these definitions can vary. In defining SMEs different criteria, such as number of employees, turnover, capital investment, nature of the business, production volume and net assets have been generally used (Ayyagari et al., 2007). For example, the Organization for Economic Co-operation and Development (OECD) (2005) defines SMEs as non-subsidiary, independent firms which employ less than a given number of employees while the European Union (2003) defines them based on the staff headcount and either turnover or total balance sheet value. On the other hand, the International Finance Corporation (2012) offers three levels of SMEs based on the number of employees. Accordingly, when the number of employees is less than ten those entities are recognized as micro enterprises, ten to fifty as small enterprises and fifty to three hundred as medium-scale enterprises. Among the various factors used to characterize SMEs, the number of employees can be highlighted as the most frequently used criterion (Ayyagari et al., 2007). These different definitions point to the absence of a universally accepted definition of SMEs.

Irrespective of what entities constitute an SME, no country can achieve sustainable development without their contribution. The impacts of SMEs, which, in turn, require that they consider and integrate economic, social and environmental concerns into their day-to-day operations. Usually, large-scale firms proactively engage in sustainability practices influenced by a wide range of stakeholders. However, it has been observed that SMEs generally adopt reactive sustainability strategies and tend to react only to the pressures exerted by external stakeholders (Loucks et al., 2010). It is thus evident that SMEs pay little heed to sustainability practices despite their potential to drive the sustainable development agenda of a country. A factor contributing to this situation could be their limited financial resources and their perception that involvement in sustainability activities is too complex as task (Dressen, 2009). Although the negative impact of an individual SME on the environment and society is insignificant when compared to that of a large-scale firm, their collective negative impact can be substantial. For example, the SMEs in the UK account for 60% of commercial waste and 80% of pollution incidents (Environment Agency, 2003). Similarly, in Wales, 97% of businesses represent SMEs and they contribute to 91% of the waste produced within the county (OECD, 2007). These macroeconomic indicators stress the importance of and need for SMEs adopting proper sustainable corporate practices.
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