

The usefulness of Environmental and Sustainability Management Accounting (EMA) for corporate sustainability management in developed and developing countries: a comparative study between Australia and Sri Lanka

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Extended abstract: In response to growing stakeholder concerns, corporations have displayed increasing interest in responsible business practices around the globe. Though there has recently been a proliferation of literature relating to Environmental and Sustainability Management Accounting (EMA), the knowledge and understanding of EMA and its tools and techniques for corporate sustainability management are still under-researched between developed and developing countries. To close this gap, this study investigates the actual implementation and application, key drivers and barriers, and impacts of EMA between Australia and Sri Lanka. The preliminary findings of the survey indicate similarities and differences in the implementation and application as well as the impact of EMA in both countries.

I. INTRODUCTION

Companies have begun to face increasing stakeholder pressures regarding the operational impact of the company on the environment and society [12] [13] as individuals become more aware of the fact that each operational process has the potential of generating a negative impact on ecological and societal systems [8]. Consequently, environmental technologies and management practices have emerged to improve corporate environmental performance [1] [9].

However, the amount of environmental information used and reported by companies remains limited and differs widely in terms of quality and usefulness, in particular between developed and developing countries [10]. In developed countries, the regulatory power of governments has the ability to force corporate strategies that are purely economic-driven to change into strategies that serve the environment and society [7]. This has propelled corporations to follow a more active role in developing environmental management accounting (EMA) and the publication of guidelines on environmental management accounting [18]. In contrast, governments in developing countries, particularly in Southeast Asia, have little impact on corporate environmental responsibility due to weak law enforcement, inconsistent regulations, lack of political will, inadequate institutional capacity and lack of cooperation among relevant parties [2][3][14][15]. Consequently, this situation has resulted in lack of guidance and drive leading to low level of awareness of the adverse environmental consequences and a limited vision about the importance of EMA. Setthasakko argues

that the absence of guidance on environmental management accounting is one of the root causes of barriers to the integration of environmental issues into accounting systems in Southeast Asia, as a lack of a common framework creates difficulties in collecting, identifying and evaluating environment-related data [11].

Despite the contextual differences between developed and developing countries, there is an increasing interest in responsible business practices of and for companies. Reflecting this corporate interest there has been a recent proliferation of literature relating to EMA. Nonetheless little is still known about the actual implementation and application of EMA tools in corporate practice. As such, the knowledge and understanding of EMA and its tools, drives and barriers, and EMA impacts are still less researched. To close this gap, this study compares on the actual implementation and application of EMA tools between a developed country, Australia, and a developing country, Sri Lanka.

II. METHODOLOGY

A comparative approach was chosen to investigate the similarities and differences in the actual EMA implementation between developing and developed countries. For the developed country, Australia was selected as it demonstrates a high level of EMA awareness and accounting practice [4] due to its focus on the mining and minerals industry. For the developing country, Sri Lanka has been selected as it has a high number of professional management accountants and their significant influence on the Sri Lankan business practices [16][17]. According to the expected diversity in the implementation and application of EMA tools, the investigation was steered by the following research questions:

How and to what extent are EMA applicable and useful for corporate sustainability management in Australia and Sri Lanka?

SQ1. What are the differences and similarities in the implementation and application of EMA tools between Australia and Sri Lanka?

SQ.2. What are the key drivers and/or barriers for the implementation and application of EMA tools between Australia and Sri Lanka?

SQ 3. What are the both positive and negative organizational impacts due to the pursuance of

EMA tools between Australia and Sri Lanka?

To answer these questions, we follow a sequential mixed methodology, with the qualitative phase following a descriptive/correlational phase. A mixed methods study combines both qualitative and quantitative analysis for the purpose of better understanding an issue. Quantitative studies are generally focused on predictions and relationships among variables [5]. Qualitative studies, on the other hand, are generally focused on description and understanding. By merging the qualitative and quantitative data, we were able to generate more “comprehensive, insightful and logical results than either paradigm could obtain alone” [6, p.10]. With the preliminary findings, we report survey outcomes only in a comparative manner. With publicly listed companies, the survey targeted 80 samples from Sri Lanka and 50 samples from Australia.

III. PRELIMINARY FINDINGS

The preliminary findings can be distinguished into three sections: First, the actual implementation and application of specific EMA tools. Second, the key drivers and barriers to adopt EMA practices (i.e. the internal and external triggers and the challenges to the implementation of EMA. And third, the impact of EMA practices on the organization (i.e. to what extent EMA practices have influenced the organization in positive and negative ways).

Actual implementation and application of EMA tools: The responses from both countries about the current implementation status of EMA tools indicates rather a similar behaviour between Australia and Sri Lanka. In both countries, the majority of companies has implemented formal systems to account for environmental aspects. Both countries list energy, waste and water as their preferred systems, while e.g. bio diversity is mentioned at a lesser extent. This is also reflected in the specific tools within both countries, where energy, water and waste accounting make up more than half of all tools (59 per cent in Australia, 56 per cent in Sri Lanka), while Life-Cycle and Material Flow Analysis as well as the Sustainability Scorecard represent only a minority within companies (20 per cent in Australia, 23 per cent in Sri Lanka). Similarity is also visible when companies were asked for the responsible department for EMA issues. In both countries, Environmental, Health and Safety (EHS) and CSR are the dominant departments for sustainable practices, representing 49 per cent in Australia and in Sri Lanka. In contrast, the traditional accounting and finance department is only mentioned with 11 per cent in Australia and 9 per cent in Sri Lanka.

Key drivers and barriers to adopt EMA: The results indicate similarities as well as differences between Australia and Sri Lanka. Both countries see the compliance with regulations and trade associations as the most important external factor to adopt EMA practices (Australia with 66 per cent, Sri Lanka 62 per cent). Yet,

the results also indicate that Australia sees the adoption of EMA practices as a greater opportunity than Sri Lanka to find new markets and introduce new environmentally friendly products and services (62 per cent in Australia, 44 per cent in Sri Lanka). This difference can also be linked to the internal key drivers to adopt EMA practices, as the results from Australia indicate that the adoption of EMA tools can help to reduce waste (51 per cent) and encourages growth of new technologies (70 per cent). In contrast, Sri Lanka sees the reduction of packages as the biggest internal factor (59 per cent), while reducing waste (36 per cent) and the development of efficient processes (36 per cent) play rather subordinate roles. With regard to barriers, the results indicate that both countries face similar challenges. In both countries, the common barriers are the lack of resources (76 per cent Australia, 79 per cent Sri Lanka), followed by inadequate collection of environmental data, due to its immateriality (75 per cent in Australia, 78 per cent in Sri Lanka).

Impact of EMA practices on the organization: Differences on the impact of EMA practices between Australia and Sri Lanka can be observed. While companies in Australia emphasize that EMA is a tool to develop and design energy and water efficient processes (56 per cent), Sri Lankan companies see this area as subordinate (with 40 per cent) and rather emphasize the impact of EMA as a tool to control carbon emissions (52 per cent). However, companies in both countries seem to perceive EMA practices as an extra investment that is not justified by its benefits (Australia with 70 per cent, Sri Lanka with 58 per cent).

IV. CONCLUSION

This study investigates the actual implementation and application as well as the key drivers and barriers of EMA and its impacts on organizations between a developed country (Australia) and a developing country (Sri Lanka). The preliminary findings of the survey indicate similarities in the implementation accounting systems as well as in the specific EMA tools in both countries. Differences can be observed in the key drivers and barriers to the adoption of EMA practices as well as in the impacts of EMA on the respective companies.

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Proceedings of the 21th Conference of the Environmental and Sustainability Management
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