

# Chapter 17

## Material Flow Cost Accounting (MFCA): A Green Management Tool (GMT) for Hotel Business

**Omolola Ayobamidele Arise**

*University of Kwa-Zulu Natal, South Africa*

**Patricia Maureen Shewell**

*University of Kwa-Zulu Natal, South Africa*

### ABSTRACT

*MFCA's potential as a GMT in the hospitality industry has not been well demonstrated. Instead, the manufacturing industry takes the credit for the successful implementation of MFCA. This may be attributed to the industry's inaccurate information on resource consumption and management for strategic internal decision-making. Greening in hotels has predominantly been viewed from customers' perspectives to gain a competitive advantage and improve profits. MFCA is presented in this chapter as a GMT to achieve eco-friendly hotel business practices via informed resource utilization data. Natural resources such as water and energy are gradually becoming scarce commodities with waste generation on the rise and environmental sustainability of the hotel business threatened. Hotels face pressure from the global market to improve their sustainability performance by implementing green practices. In meeting the requirements of sustainable practice, green management's goal focuses on reducing, eliminating, and preventing adverse effects arising from environmental activities.*

### INTRODUCTION

Resource consumption and climate change in the hospitality and tourism industry are considered common global environmental menaces requiring green intervention. The concept of green intervention in the hospitality industry was described by Scholz (2016b) as a mediation of environmentally friendly practices through the efficient use of energy, water and materials while providing quality services. The mediation

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### ***Material Flow Cost Accounting (MFCA)***

of greening of the hospitality industry became important when hotels recognised that attaining a green image was no longer a movement. Rather, it is a conventional current involving an eco-friendly status to aim environmentally cognizant customers, to gain differentiation benefits and yield premium prices for their services (Fuentes-Moraleda, Lafuente-Ibáñez, Muñoz-Mazón, & Villacé-Molinero, 2019). Green commitments was designed by many hotels to improve their environmental performance due to pressure from external stakeholders (E. S. Chan, Okumus, & Chan, 2020). The focus of greening in hotels has predominantly been on diverse environmental practices ranging from customers' perspectives to gain a competitive advantage to improving profits. The direction, however, shows customers' perceptions as the motivation for most hotels adopting green practices. This may be one reason the hotel business has given little attention to greening from an environmental management accounting (EMA) perspective.

Environmental concern in the tourism and hospitality industry is usually attributed to the significant developments and expansion the industry has experienced as one of the fastest emerging industries globally (Abdou, Hassan, Dief, & Moustafa, 2020). Up to 10.4% of global gross domestic product (GDP) is contributed by this sector. It is alleged to be a critical enabler of economic development globally, driving about 7% of global exports (Merli, Preziosi, Acampora, & Ali, 2019). The developments and improvements in the industry leave a trail of adverse environmental impacts in their paths. The report published by the United Nations World Tourism Organisation shows that of the approximately 5% of the total carbon dioxide (CO<sub>2</sub>) emissions generated by the industry globally, 2% is caused by the hotels, with a projected increase of 130% in 2035 (Aragon-Correa, Martin-Tapia, & de la Torre-Ruiz, 2015). It seems a gloomy future was predicted for the global environment due to the tourism and hospitality industry's activities. Over the years, more and more research has been published on emissions giving credence to the prediction. Although, being a global economic force, and the United Nations current key to accomplishing its 17 sustainable development goals (SDG) and 169 related targets (Abdou et al., 2020), the overall adverse environmental impact of the hospitality and tourism industry cannot be underestimated nor ignored as development should not be at the expense of responsible tourism. Therefore, attaining a suitable eco-friendly environment is considered an international obligation that involves all business domains in maintaining sustainable competitiveness (Huang, Chiu, Chao, & Wang, 2019). The various ecological challenges emanating from various business activities gradually propelled interest in green business initiatives giving rise to varied environmental management techniques. The majority of the methods have become effective in other industries like the manufacturing and mining industries. To balance the hotel business activities with the demands for environmentally friendly processes, hotels need to embrace green accounting. Green accounting can help businesses improve the efficiency and effectiveness of their resources sustainably, thereby aligning the environmental functions development and benefiting the community (Ulupui et al., 2020). Material flow cost accounting (MFCA) is an environmental management accounting technique and a management information system that supports businesses in achieving both economic and environmental performance via the analysis of energy flows and physical material as well as their related costs (Tran & Herzig, 2020). MFCA is a green accounting tool. This chapter's objective investigates the potential of MFCA as a green management tool for the hotel business.

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