

# CHAPTER ONE: INTRODUCTION

1.1	Introduction	1-2
1.2	Rationale for the research	1-2
1.3	Research aim, objectives and questions	1-5
1.4	Boundaries of the research	1-7
1.5	The importance of the research	1-13
1.6	The research approach	1-14
1.7	The structure of the thesis	1-15

## 1.1 Introduction

My name is Hatem Radwan, assistant lecturer at the Faculty of Tourism and Hotels, Suez Canal University, Egypt. I am currently undertaking a PhD study sponsored by the Egyptian Education and Culture Bureau at Cardiff School of Management, University of Wales Institute, Cardiff, UK. My research is on SWM in small Welsh hotels. It aims to provide recommendations to help the small hotel sector manage their solid waste effectively. This chapter introduces and clarifies my research in sections focusing on the study's rationale, line of enquiry (aim, objectives and questions), scope, significance, methodology and structure.

## 1.2 Rationale for the research

There are several environmental, economic and academic reasons for investigating the topic of solid waste in small Welsh hotels.

Solid waste is regarded as one of the most adverse types of pollution. It needs to be managed in a sustainable way to reduce the overall burden on the environment (McDougall and Hruska, 2000). The International Hotel Environment Initiative (IHEI) (2002) reported that waste generation is one of the most visible impacts that hotels have on the environment. On average, every customer can produce 1 kg of waste a day in a typical hotel which accumulates in producing larger quantities of waste monthly, with much going to landfill. Carlsen *et al.* (2001) indicated that most small hospitality firms did not perceive the importance of changing their SWM practices.

Despite this fact, small hotels have been paid little attention by the hotel industry, policy planners and local governments in relation to promoting their responsibility towards the environment (Shaw and Williams, 2002). In this respect, Radwan *et al.* (2008) concluded that a fundamental review of SWM in small hotels is needed to offer them more sustainable SWM strategies.

SWM is the discipline that regulates the waste from the point of generation to the final point of disposal. The management of solid waste should be in accordance with the best principles of public health, engineering, economics and conservation of the environment (Wilson and Nair, 1992). However, Nicholls and Courtney (1993) previously expected that SWM would be one of the most significant issues facing the hospitality industry in the future. Abu Taleb (2005:3) asserted that *“the disposal of solid waste has always been a problem for the hospitality industry and for many hotel operators there is no route for recovery”*. Indeed, the success of the hospitality industry worldwide depends largely on the presence of a clean natural environment (Manaktola and Jauhari, 2007).

Landfilling of solid waste from small hotels has a number of deleterious effects on the environment. Welford (1994), Kirk (1995) and Petts (2000) reported that the environmental impact of small businesses is cumulative, in which, the negative effects of their activities can build up and become a significant problem. On aggregate, small hotels, undoubtedly, generate extensive amounts of waste, much of which is handled with the easiest,

cheapest and the most accessible way of disposal (landfill) which threatens the sustainability of the environment (Carlsen *et al.*, 2001; IHEI, 2002). The improper management of hotel waste can contribute to the emergence of local and global problems (e.g. global warming, ozone depletion and climate change) (Mensah, 2004; Chavan, 2005). Once the waste material is buried under ground (landfill) it breaks down and gives off landfill gases which often contributes to air pollution and adversely impacts on human health and the environment. The biodegrading process causes also the formation of a leachate which has the potential to pollute underground water (Becklake, 1991).

The cost of solid waste is not always recognised for business operators. The real cost of solid waste is not only the disposal costs but also includes other hidden costs (e.g. materials, energy and staff) which contribute to the production of waste materials. For a small hotel in the UK, waste disposal alone costs about £110 per tonne. There is also another significant cost occurred to the environment, with the disposal of 90,000 tonnes of waste generated by the hospitality industry across the UK yearly to landfill sites. The physical and environmental costs of solid waste escalate every year (Todd and Hawkins, 2007). Indeed, solid waste should be managed in a way that enhances environmental and financial benefits to businesses (Department of the Environment, Food and Rural Areas (DEFRA), 2000). The waste management hierarchy developed by the European Union (EU) revealed that waste *“is not only a potential source of pollution – it can also*

*constitute secondary raw material*" (Commission of the European Communities (CEC), 1993:89).

There are also academic reasons for doing this research. To date most of the work dealing with SWM has focused on the local authorities' waste management plans (see Coopers and Lybrand, 1993; Read *et al.*, 1997; Read *et al.*, 1998b; Morris *et al.*, 2000; Phillips *et al.*, 2002). A range of other studies have targeted small and medium sized enterprises (SMEs) to explore and assess their response to the environmental agenda but little or no attention has been paid to SWM aspect (see Hillary, 1995, 2000; O' Laoire and Welford, 1996; Petts *et al.*, 1998; Robinson, 1998; Smith and Kemp, 1998; Revell and Blackburn, 2007). Moreover, the emphasis has been so far directed towards household waste and recycling (see Oskamp, *et al.*, 1991; Gandy, 1993; Price, 1996; House of Lords, 2008). Yet, previous research has not provided insights into the precise challenges and/or factors that might influence the behaviour of small hotel operators to implement sustainable SWM practices.

### **1.3 Research aim, objectives and questions**

The aim of this research is to identify the challenges of adopting sustainable SWM practices in small hotels and to provide potential solutions.

To reach this overall aim, the thesis has four specific objectives:

- 1) Undertake a critical review of relevant literature on SWM and small hotels to explore the different alternatives which small hotels could use to

manage their solid waste, the issues facing them in implementing sustainable SWM practices and to develop a conceptual framework to guide this research.

- 2) Investigate SWM practices in non-GDES small hotels in a Welsh local authority and explore the support available to them from the local authority and the private waste sector to manage their solid waste in a sustainable way.
- 3) Explore the attitudes of the owners/managers of GDES small hotels regarding the implementation of more sustainable SWM practices and comparing them to the non-GDES small hotels studied in the second objective.
- 4) Make recommendations in relation to SWM strategies appropriate to small hotels.

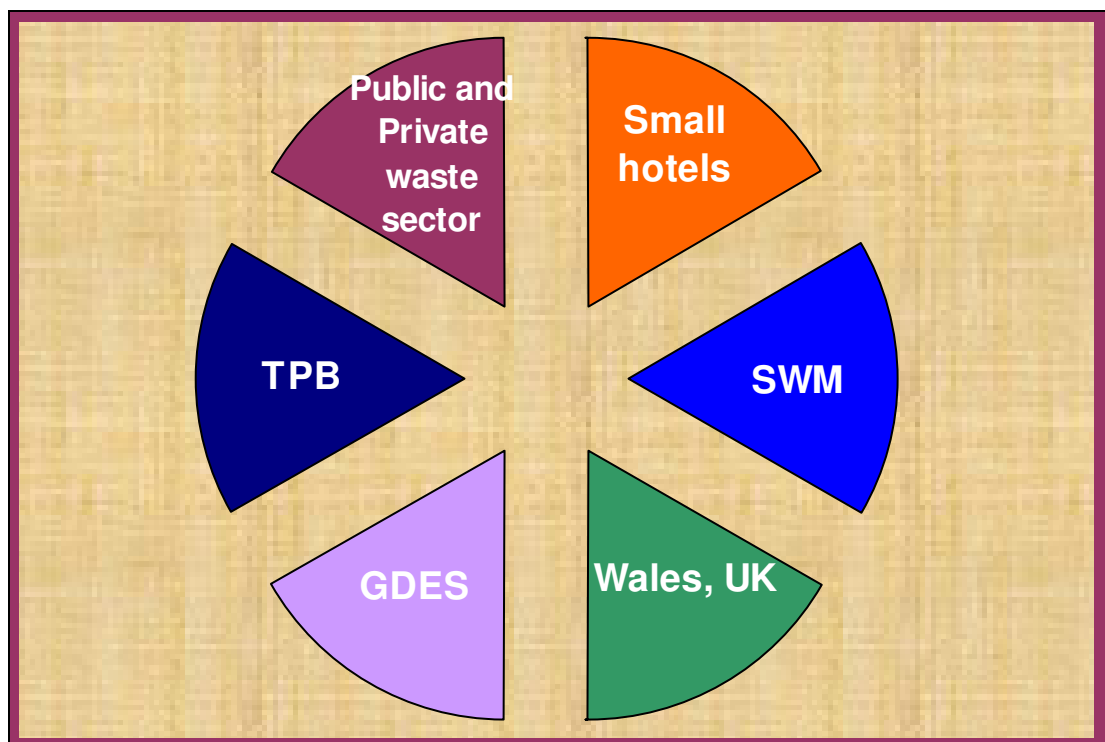
• **In particular, this research sets out to answer six research questions:**

- 1) What are the challenges of implementing sustainable SWM practices in small hotels?
- 2) How could public and private waste carriers support small hotel owners/managers in managing their solid waste effectively?
- 3) How do small hotels committed to GDES manage their solid waste? Does GDES support hoteliers in relation to SWM?
- 4) What could influence the behaviour of small hotel owners/managers to manage their solid waste appropriately?
- 5) What are the potential solutions to improving SWM practices in small hotels?

#### 1.4 Boundaries of the research

Figure 1.1 shows the boundaries of the research. The issue of SWM in small hotels is investigated via a consideration of a theory (TPB), an environmental management standard (GDES) and several stakeholders (small hotels, public and private waste sectors), in Wales, UK. The reasons for this are explained below.

**Figure 1.1: Boundaries of the research**



SWM practices are investigated in small hotels as they dominate the hospitality industry in Wales (Morrison, 2002). For the current research, small hotels are defined as those having 30 rooms or less (discussed in details in sections 2.2.1 and 3.4.1.3). This category of small, family-run businesses often ignores the environmental impacts of their activities because of their

fragmented nature. Collectively, small hotels produce a significant amount of waste, which goes to landfill. The Environment Agency (2003b) has reported that the waste produced by SMEs in the UK (which small hotels are considered significant part) is extensive representing 60% of commercial waste.

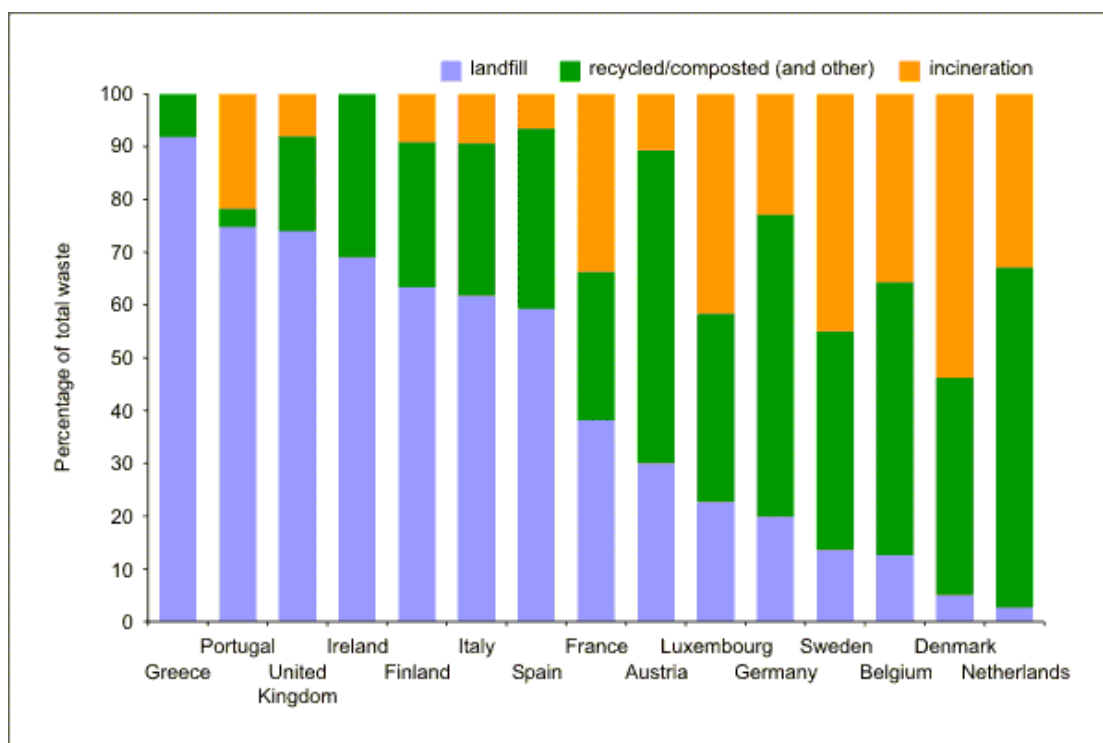
Moreover, this research has focused specifically on SWM as a significant component of the environmental management approach in hotels, with the exclusion of energy and water management. This is because many small hotel operators have no intentions to undertake sustainable SWM practices believing that SWM activities such as recycling are very difficult, time consuming and often associated with lower financial savings in comparison to other areas of environmental management (e.g. energy and water management) (see Barlett, 1992; Knowles *et al.*, 1999; Chan and Lam, 2001).

This research extends also to consider SWM operations undertaken by both public and private waste sectors in a Welsh local authority. The roles of both sectors alike are very critical to offering more sustainable SWM strategies for small hotels (Radwan *et al.*, 2008) and enable them to implement all the sustainable options listed in the waste management hierarchy (prevention, minimisation, reuse, recycle and compost). Despite SWM is one of the most important concerns of the public sector in Wales, many Welsh local authorities continue to demonstrate poor recycling rates (Read *et al.*, 1998a;

Welsh Assembly Government (WAG), 2002). In addition, many private waste companies are landfilling (Read, 1997).

This research is undertaken in Wales as SWM is considered to be a significant environmental problem in Wales and UK. Therefore, there is a great need for supporting/driving all commercial waste producers such as small hotels to undertake sustainable SWM practices. SWM in Wales has been shaped by adopting landfill as the main waste disposal route (Cohen, 2006a), landfilling about 4 million tonnes of waste every year (WAG, 2002). Overall, the rate of solid waste in the UK was rising at 3% per year which is higher than the Gross Domestic Product (GDP) and faster than most other European countries (Cohen, 2006b). In comparison to other European counterparts (see Figure 1.2) the UK is third only to Greece and Portugal in relation to the proportion of waste that it landfills (75%) (DEFRA, 2007a).

Figure 1.2: Municipal waste management in the European Union



(Source: DEFRA, 2007a)

Another factor considered in this research is eco-standards as they can potentially help ensuring the environmental quality of firms and at the same time assist customers to select environmentally-responsible firms. Hotels certified with a green standard (i.e. International Organisation for Standardisation (ISO) 14001, Eco Management and Audit Scheme (EMAS), Green Tourism Business Scheme (GTBS) etc.) adopt certain activities aimed to protect the environment, such as waste separation and recycling (Mihalic, 2004). Khanna and Anton (2002:409) stated that:

*Environmental management system (EMS) represents an organisational change within firms and a self-motivated effort at internalizing environmental externalities by adopting management practices that integrate environment and production decisions, which identify opportunities for pollution reduction and enable the firm to make continuous*

*improvements in production methods and environmental performance*

This research focuses on GDES as it is an environmental accreditation scheme designed to meet the need of small/medium and large businesses in Wales and implemented by many small hotels. It provides a stepped approach for environmental management. The standard is made up of five levels which certified organisations can progress through, including: commitment to environmental management; understanding environmental responsibilities; managing environmental impacts; environmental management programme; continual environmental improvement. However, businesses have the chance to enter the process and stay at whatever level they see that it is most appropriate for their environmental performance. It is worth noting that the first two levels are more suitable to the size of small businesses. The standard provides structured guidelines to help committed businesses to improve their environmental performance, achieve financial savings, comply with environmental legislation and increase competitiveness (Green Dragon, 2006).

ISO 14001, EMAS, Green Globe 21 and GTBS are outside the scope of this research. Both ISO 14001 and EMAS had been developed basically for larger-scale companies and were not appropriate to meet the needs of SMEs (Gerstenfeld and Robert, 2000; Holt *et al.*, 2000; Kuhndt and Von Geibler, 2002; Pimenova and Van der Vorst, 2003; Chavan, 2005). The formal requirements and auditing systems of ISO 14001 and EMAS are too

complex, costly and time consuming to address by small business operators (Daily and Huang, 2001; Rajendran and Barrett, 2003). Similarly, the Green Globe 21 and the Scottish scheme (GTBS) were also excluded as they were not widely implemented by small hotels in Wales where the study took place. For instance, there were only two small Welsh hotels certified with GTBS while there were no small hotels accredited with Green Globe 21 in Wales (Green Tourism Business Scheme (GTBS), 2009; Green Globe, 2009).

The TPB is undertaken in this research as a theoretical framework as it gives a greater opportunity to understand both hoteliers' attitudes and the barriers facing them to implement sustainable SWM practices rather than other theoretical models (e.g. Theory of Reasoned Action (TRA) and Ipsative Theory of Behaviour (ITB)). The TPB (Ajzen, 1985) supposed that people had a rationale basis for their behaviours. The model via its main constructs (Attitude, Subjective Norm and PBC) provides an appropriate theoretical framework to help explore and understand the factors which influence behavioural choices (Davis and Morgan, 2008). *"A better understanding of small tourism firm intentions and behaviours in relation to sustainability and the beliefs (attitudinal and normative) that underpin these, will lead to a more incisive insight into the way(s) in which such behaviour might be most effectively influenced, for example by policy makers"* (Dewhurst and Thomas, 2003:388).

## **1.5 The importance of the research**

The small hotel sector contributes significantly to the degradation of the environment through the disposal of large quantities of waste to landfill collectively. Thus, this research will be of great value to small hotel owners/managers as it will help them to manage their solid waste effectively. Through exploring hoteliers' attitudinal and control-based beliefs regarding SWM issues this study will identify the tools that can be used by the government to influence hoteliers' attitudes and compel better SWM practices. It is envisaged that this research will assist small hotel operators in reducing waste disposal costs by preventing and/or minimising waste at the first place of generation. Furthermore, this study will partially contribute to reduce the over-dependency on landfill in Wales and the UK via better SWM in the small hotel sector. It will also help in filling the gap between council practices and strategies and shape the potential role of the public and private waste carriers to support small hotel businesses to manage their solid waste in a sustainable way. This will no doubt assist in improving the overall picture of SWM in both UK and Wales among other European counterparts regarding the amount of waste disposed into landfill.

Moreover, the problem of SWM is international in its scope; with many countries facing the same challenges and being exposed to the same dangerous effects of poorly-managed commercial waste, e.g. ground water pollution and emissions of gases. Therefore, this research will be of great importance to Egypt which is my nation as the problem already exists and

needs some potential solutions. It is recognised that Egypt and UK implement different waste strategies but the situation looks relatively similar from the perspective of small hotels, undertaking landfill as a primary SWM option. Abu Taleb (2005:2-3) asserted:

*There are several constraints on proper waste management in Egypt ranging from problems with the collection process to the recycling and disposal of solid waste. Existing official dump sites are inadequate, being few in number and requiring rigorous management. Increased pressure for proper SWM is expected to arise in the future as the quantity of the waste that is generated rises. As a result, the recycling of waste is among the most challenging problems faced in waste management in Egypt*

Therefore, this research will potentially help in protecting the natural environment, which constitutes the most significant resource available for the tourism industry, from the negative impacts arising from burying waste in holes in the ground (landfill). It will add to the literature on SWM by providing recommendations to SWM best practices for small hotels and will enrich the researcher's knowledge about the research topic.

## **1.6 The research approach**

This research adopts a qualitative approach using the case study research strategy to accomplish the overall aim, objectives and questions of the study as it is characterised by its ability to get detailed information about the phenomenon being investigated, namely SWM in small Welsh hotels. A multiple case study of small Welsh hotels is designed which enhances the validity of this research and offers the opportunity to study SWM issues in two different incidents (GDES and non-GDES small hotels). The case study

allows the researcher to investigate the problem from different perspectives focusing on relationships and processes and using multiple sources of evidence, including: semi-structured interviews, direct observation and document analysis. Thus, any findings would be very accurate and persuasive (Yin, 2003). Data is analysed through the constant comparative method.

### **1.7 The structure of the thesis**

The dissertation is broken down into eight chapters. Chapter one addresses the research problem of SWM in small hotels and provides the rationale for undertaking this research. It identifies the research aim, objectives and questions which this study seeks to achieve. It outlines the boundaries of the research, its significance, the research approach and then briefly explains the dissertation's structure.

Chapter two provides the related literature on small hotels and SWM. It addresses SWM issues specifically in hotel operations and critically analyses all the SWM alternatives set in the waste management hierarchy, starting with prevention and/or minimisation throughout recovery by means of reusing, recycling and composting and finally disposal to either incineration plants or landfill sites. The chapter considers also the different theories which can be used to enhance the understanding of human behaviour. The literature review concludes with the development of a theoretical model of best practice for SWM in small hotels.

Chapter three identifies and rationalizes the research approach adopted in the current study. It presents the thesis's epistemology, theoretical perspective, methodology and methods. The chapter provides justification for the research strategy, sampling procedures and the methods used to meet the research objectives. It also looks at the data analysis process and considers issues of research validity, reliability and triangulation. It finally discusses the potential for generalisation.

Chapter four explores SWM issues in a case study of non-GDES small hotels in a Welsh local authority. This chapter presents and discusses hoteliers' attitudes and the barriers facing them in implementing the ranges of sustainable options listed in the waste management hierarchy, together with the potential use of PTB schemes. It highlights the potential support and the drivers needed for better SWM in small hotels and concludes with an initial model for SWM in non-GDES small hotels.

Chapter five similarly investigates SWM issues but this time in a case study of small hotels committed to GDES in Wales. This chapter highlights the environmental responsibility of GDES small hotels and identifies the motivations which led GDES hoteliers to implement sustainable SWM practices. It introduces a modified model for SWM in GDES small hotels capturing hoteliers' attitudinal and normative beliefs towards the investigated SWM issues, along with their control based beliefs which influenced their behavioural intentions in relation to SWM.

As the role of the waste carrier is critical to support small hotels to manage their solid waste effectively, chapter six provides SWM operations undertaken by the public and private waste sectors in a Welsh local authority. This chapter highlights the capability of both public and private sector's waste carriers to work with small hotels towards the implementation of more sustainable SWM practices. It concludes with an input/output process model for the government to drive the consideration of more sustainable SWM practices.

Chapter seven evaluates and discusses SWM practices across all cases studied (non-GDES small hotels, GDES small hotels, public and private waste sectors). It reinvestigates SWM practices in non-GDES small hotels 18 months after the initial interviews with them following the introduction of improved SWM system by the local authority for the support of commercial businesses. It develops a cross-case analysis towards the development of a best practice model for the public sector to encourage better SWM practices in small hotels. It also evaluates TPB as a theoretical model used to understand and explain the behaviour of small hotels in relation to SWM.

Chapter eight concludes this study on SWM in small Welsh hotels. It presents a review of the research objectives and outlines the research major findings. It also highlights the thesis' contributions, limitations and opportunities for future research.