

WASTE MANAGEMENT PRACTICES IN INDIAN HOTELS

¹Shivangi Shrivastava, ²Dr. Sanjeev Kumar, ³Dr. Manoj Kumar

¹Research Scholar, ²Assistant Professor, ³Assistant Professor

Institute of Hotel & Tourism Management,

Maharishi Dayanand University,

Rohtak, India.

Abstract:

Hospitality is one of the fastest growing industries in the world. It is always a go green concept by which it meant to be environment friendly but due to its specific functions and competitive approach it can leads to large amount of waste generation. Due to globalization, there is tremendous growth in hospitality industry day by day. The hotels are receiving a huge number of guests which are increasing day by day which is a main reason behind the generation of large amount of waste. Waste can be defined as the undesirable materials which are incompetent to use for any living organisms or environment. In hotels the waste can easily be found in kitchens, guest rooms, restaurants etc. Most of the waste causing from a hotel can be recycled. Waste can be appreciated if the green practices are followed and if it is handled properly then it will turn in asset. Following waste practices will be beneficial to the hotel in terms of economically, socially, naturally etc. So, the present paper is an attempt to find out chief wastes from hotel industry and what are the practices followed by industry to reduce, reuse and recycled the waste and how these wastes can be turn into an asset.

KEY WORDS: Hotel industry, Waste, incompetent, recycle and asset.

INTRODUCTION

India has always been a central attraction country for the tourists because of its incredible natural beauty, culture, tradition, food etc. These qualities boost the growth of Indian Hotels and Tourism industry. As a result, there is a rapid growth in hospitality and tourism sector which attracts the international chain hotels to open their venture in India. The Indian hotel industry has witnessed a tremendous growth in recent years globally. As per the data released by MOT Government of India for year 2018, the number of foreign and domestic tourist have increased from 4784847 (June 2017) To 5163343 (June 2018). India received 26886638 foreign guests and 1652485357 domestic guests, and the number is increasing day by day. In 2017, the industry has generated 27310 (in US\$ million) i.e. INR 177874 Crore & has generated 14625 (in US\$ million) i.e. INR 95,713 Crore till June 2018. Though, it is a healthy sign as hotel industry has got success in alluring a vast number of guests

both domestic and international, but this increasing number of guests have also affected the environment at a large scale. The continuous visit of guest has become a major reason for waste generation in hotels. Hosting any function in hotels is a recent trend no matter what type of function it is. These functions like marriage, birthday party, anniversary, business meetings etc. held in hotels ultimately results in increasing waste at large scale. Seeing this fact, it is necessary to identify the type of wastes generated in hotels then only this issue can be solved, and proper action can be taken.

The term waste usually refers to any undesirable material which is incompetent to use for any living organisms or environment. Many researchers have conducted their research and found that nearly 65 % of the waste generated in the hotels can be recycled. For example, the torn double bedsheet can be transformed into single bedsheet, single bedsheet can be recycled in pillow covers or dust sheets, the kitchen waste can be used as organic manure for the gardens etc. Waste can be appreciated if the green practices are followed and if it is handled properly then it will turn in asset. Following waste practices will be beneficial to the hotels in terms of economically, socially, naturally etc.

Review of Literature: Since waste is a great matter of concern in hospitality industry. In hotels, owners often pay twice for the waste; firstly, in the form of packaging and secondly for their disposal. Normally, a hotel generates nearby 1kg of waste per night per guest (International Tourism Partnership Report, 2008). If the waste is not managed properly then it may act as a threat to health and can decrease the quality of our environment. As a result, the minimization and proper waste management of waste is a prime concern for every commercial entity especially hotel industry.

Now a day, hotels are more worried about waste and waste management practices. Therefore, hoteliers and researchers felt a need of discovering the waste management practices and conducting studies on this burgeoning topic, as it is directly related to hotel and environment too. Few of them are listed below:

Shanklin, Carol W. (1991) stated in their research that there are two main issues of solid waste management in hotels i.e. waste disposal fees and a positive public image.

Florida Hotels & Motel Association, December (1993) published a guide about waste recycling in hotels & motels and its benefits and how employees and guest can be involved in the recycling program.

Tang, Janeen (2004) conducted a case study on hotel solid waste management program and their aim is to provide information on various issues and challenges countries are facing about solid waste management.

Hatem R.I. Radwan, Eleri Jones & Dino Minoli (2009) conducted research on the solid waste management practices in small hotels in United Kingdom and concluded that only few hotels have been adopting social waste management practices.

Pandey M. & Pandey M. (2011) conducted a research on the recent practices adopted by housekeeping department in hotels. They highlighted the present scenario of waste generating by facilities offering to the guests and concluded that it is a difficult task to handle the waste and disposition the waste.

Nworuh, O.B; Morakinyo, O.M; Iwuala, C.C; NwokeE.A & Ukomma, S.A (2011) conducted research on waste disposal and management practices and concluded that those hotels do not follow waste disposal activities they are unsustainable.

Malik S. & Kumar S. (2012) suggested remedies relating to better waste management and lower waste generation.

Jyoti, Malik G. & Ahlawat S. (2013) concluded that if hotel follows proper waste management practices, it can lead to hotel growth and profitability.

Josefina S. Viernes (2014) conducted a research to see extent of implementation of green practices in the housekeeping and food and beverage departments among standard hotels in Puerto Princesa City, Palawan. Josefina S.V (2014) concluded that solid waste management is the most implemented practice in comparison to water conservation and energy utilization.

Sealey, Kathleen Sullivan & Smith, Jarrell August (2014) explored the costs and resources required for food waste recycling and some ways to implement more effective solid waste management for the tourism industry on small island.

Vikas Mohan, Bansal Deepak & Sharma Mona (2017) conducted a study on Reduction and Management of Waste in Hotel Industries and concluded if a hotel is green hotel or if the hotel contributes to the environment then this message act as a powerful tool in getting guest loyalty.

S.T. Pham Phu, M.G. Hoang & T. Fujiwara (2018) conducted a study on Analyzing solid waste management practices for the hotel industry and concluded that 84.3% of total hotel waste were organic and can be recyclable.

OBJECTIVES:

- To identify various chief wastes from hotel industry.
- To find out the practices followed by industry to reduce, reuse and recycled the waste.

RESEARCH METHODOLOGY:

For the present study, secondary data is collected, arranged and analyzed from journals, magazines, books, hotel websites, theses etc.

CONCLUSION

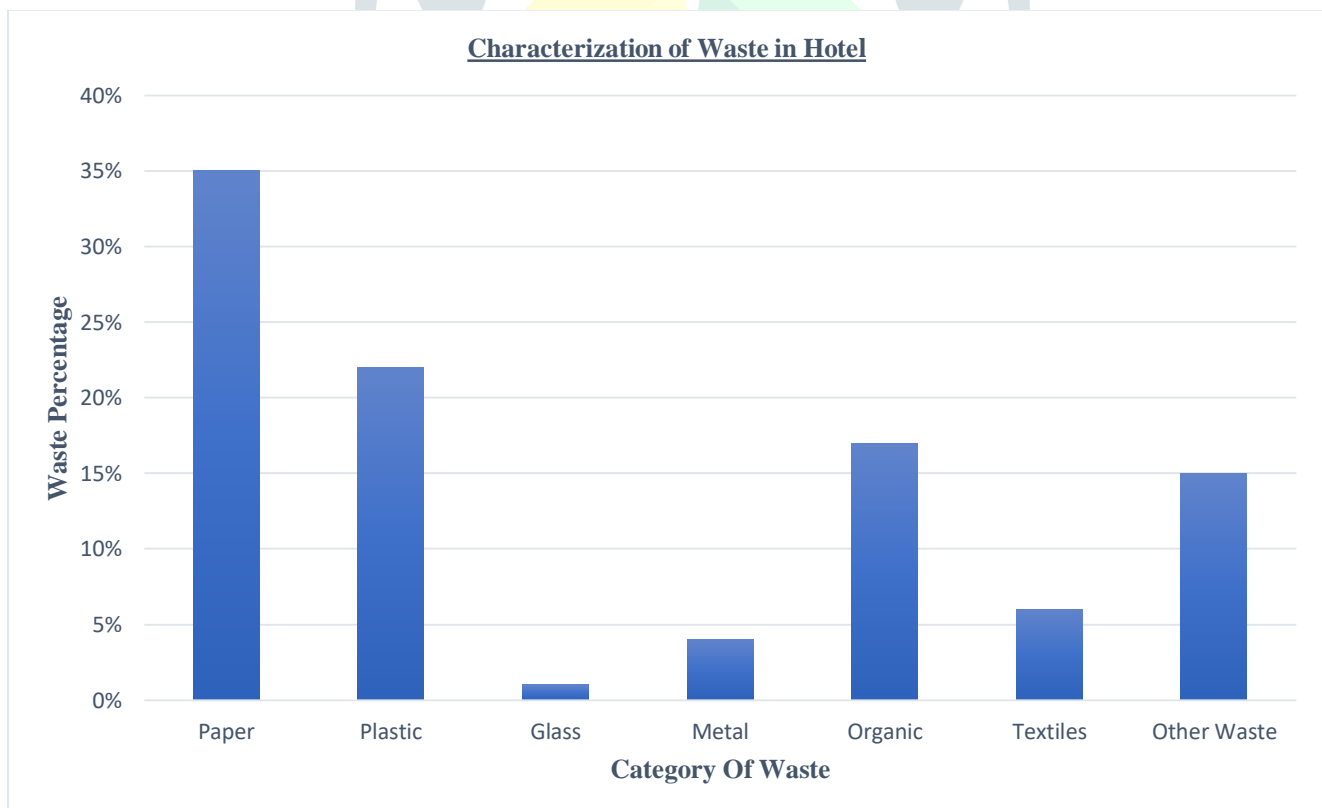
A. Types of Chief wastes in hospitality industry:

In hotels there are mainly five major operating areas where waste can be generated. These are:

- Offices such as front office, GM office, Director office, Heads office, accounts, purchase, sales and marketing, other department supporting offices (Office equipment [computers, printer, monitor etc.], Toner cartridge, Paper and card etc.)
- Housekeeping including guest rooms and laundry (Towels, robes and linens, Soaps, shampoos and other bathroom Cleaning chemicals, newspaper and magazines etc.)
- Food & beverage including f & B outlets, kitchen and stewarding (Cooking oils, Fats & grease, Food waste, Raw fish and meat bones and trimmings from food preparation, Unused bread, pastries, sandwiches, salads, etc., Vegetable and fruit peelings, eggshells, used coffee grounds and tea bags, Aluminum cans and foils, Corks, glass etc.)
- Stores (Plastics, Packaging wastes etc.)
- Engineering (Fire extinguishers, screws, nuts, bolts, Batteries, white goods etc.)

These sub sections of hotels generate different types of waste ranging from paper to toxic chemical waste which is disposed at landfills.

Source: Waste Characterization adopted from Nath A. (2014)



There are various departments responsible for waste production like Food & Beverage department, food production department, housekeeping etc. A large percentage of waste is produced in the form of paper waste. The Paper waste is of 35% of total waste of hotel. It includes newspapers, magazines, printouts, tissue papers, tetra pack (juices), copy paper, photocopies, brochures, books, toilet roll cartridges, packaging paperboard, carbon paper, etc.

The plastic waste comprises of 22 % of total waste of hotel. It includes bottles, plastic plates, packaging plastic and wrappers, mineral water bottles, plastic bags, egg cartons, plastic or wax coated paper, candy wrappers, foil gift wraps, shampoo bottles, carrier bags, plastic cutlery, toys, bleach & cleaner bottles, etc.

The glass waste comprises of 1 %, mostly it is of wine and beer bottles and their glasses.

Hotels are key place to organize parties, functions, etc. and generates metal waste too. It comprises of 4% of total waste and includes beer cans, steel plates, spoons etc.

Organic or food waste like vegetable waste, leftover food, fruit waste, egg shells, sea food waste, dairy products, etc. also contributes 17% of total waste.

Textile waste like pillow covers, bed cover, table cloths, cotton cloth, carpets, towels, mattress, thread waste etc. It contributes 6% of total waste.

The rest of waste like corks, used oils, garden waste, white goods, chemicals, batteries etc. comes in other waste and it shares 15% of total waste.

B. Practices Followed by hotel Industry to Reduce, Reuse and Recycled the Waste

Waste management in hotels is not an easy issue to deal with as this green initiative may be difficult and time consuming. It is difficult to handle waste in hotels as the industry run 24×7×365 days where cleanliness, hygiene, safety etc. are some of the major factor by which it is difficult to think about ecofriendly solution.

Many researchers have conducted their research and suggested that nearly 65 % of the waste materials in the hotels can be recycled or reused. By adopting a waste management system, a hotel can easily segregate the waste by their sources which can stored safely and disposed in the environment friendly way.

In hospitality industry, the waste management is very important as it attracts the customer and makes good sense to the business. Also, hotel can generate additional income by selling old resources and can save money too by reusing and recycling useful material. Therefore, it is recommended to use waste management practices in hotels. Therefore, it is necessary to educate the staff about waste and how the waste can be minimized.

The hotel can contribute significantly in waste management program by following waste hierarchy. The waste management hierarchy can act as a tool to control the waste in hotels. It indicates the best environmental order of preferences or the action that should be taken to manage the waste which have least impact on environment.

It starts with the most preferred option i.e. REDUCE followed by REUSE, RECYCLE, RECOVER and ends on the least preferred option i.e. LANDFILL.

Reduce or Reduction is the process to minimize the amount of waste produced for e.g. Reduce the usage of plastics. Reuse is a process of re using the waste products like reusing shampoo bottles, hand wash bottles etc. Recycle is a process of making new products from the waste materials for e.g. double bed sheet can be convert into single bed sheet, single can be converted into pillow cover etc. Recovery is the retrieval of energy by waste i.e. generating electricity, heat or fuel by treating waste. Disposal is the least preferred option of the hierarchy, it involves landfill and burning of waste. The basic objective of waste hierarchy is to give priority to waste prevention.

Since waste management is crucial in terms of guest satisfaction and environmental perspective. Therefore, hotels have adopted various methods to control and manage waste. On the basis of waste management hierarchy, the waste management practices are classified in three steps which are as follows:

1. Reducing:

- The guest amenities which are not in frequently use should be supply on request basis.
- Reduce the concentration of cleaning agents.
- Use ecofriendly cleaning agents.
- Reduce the use of plastics.
- Reduce the use of plastic water bottles instead refill the bottles by using central water purifier.
- Reduce energy consumption of equipment's by installing energy efficient machines.
- Use rechargeable batteries instead of disposable ones.
- To save paper reduce the font size and spacing between the lines.
- Use maximum day light instead of artificial light.
- To save paper cost and minimize paper waste, documents are printed both sides.

2. Reusing:

- The guest room amenities like water bottles, laundry bags, shoe mitts, bed room slippers, etc. if unused then normally reused by the hotel housekeeping department.
- Basic bathrooms amenities like soap, hand wash, Moisturizer and shampoo is used in dispensers to reuse them.
- Guest room furniture and fixtures is reused in back offices of the hotel.
- Most of the hotels are using water treatment plant so that the sullage can be reuse in the form of laundry water, garden and in WC.
- Used envelopes are collected, stored and then reused for internal purposes.
- Reusable bags are provided for the laundry purpose.
- Reuse the leftover food in staff cafeterias or to make rechauffe dishes.
- Instead of paper coasters use reusable coasters.
- Use refillable cartridges.
- Use cloth napkins instead of paper napkins.

3. Recycling:

- Plastic bottles, e-waste, white goods and newspaper are sold to the outside agency for revenue generation.
- Leftover food waste can be sent to the animal farms for cattle feeding and society too through the NGO.
- Organic waste is sent to garden for organic manure.
- Use damaged double bedsheets as single bedsheets, single bedsheets as pillow covers.
- Use damaged towels or linen as dust sheets, dusters or as wiping sheets.
- Donate unusable machines, paper, plastic and other waste material to recycling agency.

C. Some Ecotel hotels in India

- **ITC Grand Chola – Chennai:** It is the greenest hotel of ITC. The hotel have their own wind farms which delivers the hotels electricity, most of its hot water is comes by solar energy, and of course sustainable materials were used in its construction.
- **Floatel – Kolkata:** It is a four-star property in Kolkata. They follow waste management program and their motto is Reduce, Reuse & Recycle. With the help of these 3Rs they recycle approximately 15 kilos of solid waste on daily basis.
- **Orange County – Kabini:** this is a resort located near the Nagarhole National park, Kerala. The Orange Country has been recognized as one of the top 25 best eco-lodges across the globe. Windmill electricity, eco sewage treatment and plastic-free zone are some of the top eco features of this resort.

- **The Orchid Mumbai:** It is Asia's first certified eco-friendly 5-star hotel. This hotel treats waste water by sewage treatment plant and use this treated water for gardens and for ACs. The bathroom amenities are herbal, and the toilet paper is recyclable.

SUGGESTIONS & RECOMMENDATIONS

Hotels can adapt various initiatives to follow effective waste management. Some suggestions are given below:

- The hotel should provide proper training to the employees for handling the waste.
- The hotel should provide proper signage for waste handling practices.
- Old bedsheets can be used as dust sheets.
- Old mattresses can be remanufactured.
- Old linen can be re-dyed to match the new décor.
- Rotation of mattress can be done to increase the life span of it.
- Can implement paperless feedback system.
- Different color-coded dustbins are needing to be placed for collecting different types of waste.

Hotels must adopt effective waste management programs as it has a great impact on environment. Hotels must conduct training workshops for both guests and employees in regard of waste reduction. With the help of these training workshops and practices, the employees will understand the value of waste handling and follow green practices. The hotel which follows the green concept, customer gets attracted toward them which helps the hotel to sustain and creating goodwill by making optimum & efficient use of resources.

REFERENCES

- [1] Pham Phu, S.T.; Hoang, M.G.; Fujiwara, T., (2018). Analyzing solid waste management practices for the hotel industry. *Global J. Environ. Sci. Manage.*, 4(1): 19-30.
- [2] Vikas Mohan. "Reduction and Management of Waste in Hotel Industries." *International Journal of Engineering Research and Applications (IJERA)* 7.7 (2017): 34-37.
- [3] Amar Nath. (2014) Profitability and sustainability from waste management practices in hotels and its impact on environment.
- [4] Viernes, J. S. (2014), Greening the hotel operations: Puerto princesa experience. *Asia Pacific Journal of Multidisciplinary Research*, 2(5).
- [5] Sealey, K. S., & Smith, J. (2014). Recycling for small island tourism developments: Food waste composting at Sandals Emerald Bay, Exuma, Bahamas, 25-37.
- [6] Jyoti, Gunjan Malik & Shilpi Ahlawat July (2013) Hotel housekeeping: new directions and challenges *IJRIM*, (International Journal of Research in IT & Management), Volume 3, Issue 7, ISSN 2231-4334.

- [7] Malik, S., & Kumar, S. (2012). Management of hotel waste: A case study of small hotels of Haryana state APJEM. Arth Prabhand: A Journal of Economics and Management, 1(9).
- [8] Nworuh, O. B., Morakinyo, O. M., Iwuala, C. C., Nwoke, E. A., & Ukomma, S. A. (2011). Wastes management practices in selected hotels in owerri, Nigeria, 3(7).
- [9] Pandey, M., & Pandey, M. (2011). Recent trends of solid waste management practices in housekeeping operations of hotels.
- [10] Hatem R. I., Radwan, E. J., & Minoli, D. (2009). Managing solid waste in small hotels. Journal of Sustainable Tourism, 18(2), 175-190.
- [11] Tang, J. (2004). A case study of a hotel solid waste management program in Bali, Indonesia, Florida Hotels & Motel Association, December (1993). Recycling in Hotels & Motels. A Guide for Hotel and Motel Recycling Managers.
- [12] Ministry of tourism accessed at www.tourism.gov.in.

