Assessing the Sanitation Conditions of Selected Hotels and Guest Houses

^{*1}Edith Axala, ²Gifty Nyanta Karikari, ²Edith Kafui Tse, ³Barikisu Mohammed

¹Tutor, Jasikan College of Education, P. O. Box 14, Jasikan-Ghana
²Principal Domestic Bursar, Notre dame Girls Senior High School, Sunyani- Ghana
²Tutor, Akatsi College of College, PMB Akatsi
³Tutor, Boakye Tromo Senior High Technical School, Box 71, Duayaw Nkwanta-Ghana

*Corresponding Author: Email: comfortserwaa843@gmail.com

Abstract: The main aim of the study was to assess the sanitation conditions of hotels and guest houses within the Kumasi Metropolis using a quantitative research approach. Data was analysed from a sample of 102 respondents from 10 selected hotels and guest houses within the metropolis. A questionnaire was used in gathering the data from the respondents. A Simple Random Sampling technique was used to sample the staff from the selected hotels and guest houses within the metropolis using a quantitative research approach. Data was analysed from a sample of 102 respondents from 10 selected hotels and guest houses within the metropolis. A questionnaire was used in gathering the data from the respondents. A Simple Random Sampling technique was used to sample the staff from the selected hotels and guest houses. Using the SPSS software, the study found that the general environment of the hotels and guest houses were clean especially the bedrooms though the bathrooms and toilet compartments in some of the facilities were not standardised due to the structural layout. Food handling and cleanliness in the hotels and guest houses were also discovered to be unprofessional and unclean in most places. The study therefore recommends that management of the hospitality industry should take into consideration the health needs of their customers by keeping the kitchen, foodstuff and cooking equipment clean in order to provide a healthy diet for their customers. A further study should also be conducted to include the behavioural activities of the food handlers and housekeepers besides the environmental sanitation.

Keywords: Environmental Sanitation, Hotels, Guest Houses, Accommodation, Housekeepers,

1. INTRODUCTION

Environmental sanitation is among the powerful drivers of human development as it affects quality of life. It cuts across all sectors of the economy including those that concern health, environmental protection, improvement of human settlements and services, tourism and general economic productivity. As Ramsley & Ingram (2004) pointed out, one of the basic principles of the European Environmental Policy is "prevention is better than cure". The cost of curing an outbreak as highlighted by the WHO Fact Sheet (2007) creates an enormous social and economic burden on communities and their health system in the form of medical costs and lost productivity. One way to ensure that hotel operators do not compromise customers' health in the provision of lodging, food and drinks is for the regulatory and enforcement agencies to constantly supervise to ensure continual compliance with laid down food hygiene and sanitation rules and regulations as argued by the FAO/WHO (2003).

Shastri, Raval & Mapuskar, (2010) suggested that sanitation can be taken to mean the adoption of measures to eliminate unhealthy elements especially with regard to dirt and infections. Since the revolution of sanitation (UNEP, 2005), there is a growing body of knowledge demonstrating the fact that causes today's environmental problems. This can be traced back, directly or indirectly, to the lifestyles, choices, values and behaviours of local communities (Daramola, 2012). Considering hotels and guesthouses as part of the community stakeholders in ensuring environmental cleanliness and safety, they are not exempted from the calls for a holistic approach of participation in finding solutions.

The current situation concerning sanitation in the world today indicates that people still lack access to improved sanitation even in the hospitality industries. There is the need to shift away from simply providing centrally planned infrastructure to approaches that can help create and serve people's motivation to improve their own sanitation (WHO/UNICEF, 2013). This development is more prominent among the developed nations where unimproved sanitation facilities have become the main cause of widespread and serious health problems (Masangwi, et al., 2010). According to Mara, et al., (2010), poor sanitation, poor hygiene, and poor water supply systems are still responsible for about 50% of the consequences of childhood and maternal underweight. They indicated that urban sanitation must extend beyond the household acquisition of a toilet to a systems-based

approach that covers the removal, transport, and safe treatment or disposal of excreta.

Sanitation has received increased attention in the past decade. With the adoption of UNICEF's water. environmental and sanitation sector strategy paper (E/ICEF/1995/17), emphasis was placed on environmental sanitation, hygiene and behavioural change. This may seem to be applicable at the household levels but the hotels and guesthouses need much of such strategies as several people patronise their services in a daily basis. Improving sanitation is not an easy process. According to Atul (2008), an integral component of the hospitality industry is the accommodation or lodging sector whereas hotels form an integral component of the tourist image of a destination. Since the first conception during the fourteenth century, a variety of accommodation facilities such as inns, taverns, private houses, guesthouses and hotels have emerged as the tourists demand for accommodation increased (Atul, 2008).

As indicated by Cooper et al., (2008).accommodation or lodging is the largest and most global subsector within the hospitality industry. With few exceptions, tourists require a location where they can rest and revive during their travel. This makes accommodations more of a need to human travelling rather than luxury. Throughout the human race, many footage of accommodation can be found whose types and organisation varies in relation to their size and facilities. However, the main purpose remains to provide service to their customers (Cooper et al., 2008).

Several accommodation providers have responded to global environmental concerns. Likely, some of the hotels and guesthouses have embraced the principles of sustainable development to mirror customer concerns with the energy consumed by their stay (Page, 2009). With a growing understanding about environmental sustainability and global warming, in every industry alike, the accommodation sector is plunging forward to preserving the environment by its activities.

Research indicates that the hotel sector of the hospitality industry discharges about 160-200kg of CO_2 per m2 of room floor area per year, 1gk of waste per guest per night and 170-440 litres of water used per quest per night (Bohdanowicz & Martinac, 2007; Liu & Sanhaji, 2009; Sloan *et al.*, 2009). The increasing in patronage of the hospitality industry worldwide leads to higher occupancy rates, rapid hotel development and the higher consumption of energy and resources, thereby imposing an increasing

ecological footprint (Chung & Parker, 2010). The massive growth in the hotel industry has considerably affected the environment at a global level (Rodriguez & Cruz, 2007) and evidently the hospitality industry will no longer be able to ignore its environmental responsibilities (Brown, 1996).

According to Essex & Hobson (2001), 50% of the hospitality industry providing accommodation services believed that there were no financial rewards in adopting environmental practices. Hoteliers also believe that mere compliance with laws and standards is adequate in making their facilities environmentally responsible (Despretz, 2001). Even though a number of hotels may show an interest in environmental aspects, only a few carry out formal environmental audits (Goodall, 1994). In addition to that, many managers may still be operating with the old world mental models that do consider the value of the environment (Brown, 1996).

The hotels and guesthouses do not only provide accommodation services but also provide food and drinks for their customers who patronise their establishments. It is therefore the mandate of the hotel and guesthouse management to ensure that the food they provide have all the nutrients and are safe for human consumption. According to the WHO (2002), food safety is defined as the assurance that when food is consumed in the usual manner does not cause harm to human health and wellbeing. Pattron (2006) added that food safety is of greatest concern in the twenty-first century. In the widespread of diseases, (Olson, et al., 2000) postulated that food service establishments are sources of food borne illnesses and food handlers contribute to food borne illness outbreaks. Mishandling and disregard of hygienic measures on the part of the food handlers in the hospitality industry may enable pathogenic bacteria to come into contact with food and in some cases survive and multiply in sufficient numbers to cause illness in the consumer.

As part of assessing the sanitary conditions of hotels and guesthouses within the selected facilities, the food service aspect of the industry cannot be overlooked. However, information on the food safety knowledge and practices among the food handlers in the Kumasi Metropolis is limited. As indicated by FSA (1990) and NEHPR (2007), all sections of the premises where food-related activities are carried out such as hotels and restaurants must be cleaned and maintained in good repair. They specifically noted that the food premises comprises of the kitchen, (where edible food materials are brought together, combined and cooked in different ways for consumption), the restaurant (where food is served and eaten or taken away for consumption), and the storage area (where food and other materials are kept till they are required for use by the production) (Mohini, 2004; Fosket & Ceserani, 2007). Hence, the objective of the study was to assess the sanitation conditions of selected hotels and guest houses in the Kumasi Metropolis.

2. MATERIAL AND METHODS

Research Approach

Research approaches have been formulated and categorised differently by various authors in research (Yin, 2003; Saunders *et al.*, 2011). This study employed the mixed method in its investigation. The quantitative approach was used to examine the relationships between demographic characteristics and the sanitation practices as used by the hotels whereas the qualitative approach was used to examine, understand and describe the phenomenon of sanitary conditions of the hotels in the Kumasi Metropolis.

Data Collection and Instrumentation

The primary instrument for collecting data in this study was the questionnaire; hence the data type was primary data. However, the collection and use of secondary data of information is also necessary, since the researchers consulted literature and visited the selected hotels within the Municipality where applicable to source for information relating to the current study.

The questionnaire was designed purposely to collect data from staff of the selected hotels within the study area. In order to reduce or eliminate ambiguous questions to make the questionnaire understood by all the respondents, a pre-testing using a few selected staff was done in order to ascertain the level of difficulty and simplicity of the questionnaire.

Observation was another method employed to collect data for the study. Using a digital camera, images of the physical environment was recorded for visual analyses and comparison to best practices and regulatory requirements of hotels by the Environmental Protection Authority as evidential materials to authenticate the results of the study.

Population and Sample Size

The study population is the aggregation of elements from which the sample is actually selected. It comprises all subjects or units from which information could be obtained (Rubin and Babbie, 2001). In another way, Cavana *et al* (2009) defined population as the entire group of people, elements or event of things of interest the researcher desires to investigate.

Due to the limited time scheduled for the study and the large number and dispersion of hotels within the Kumasi Metropolis, it seems impossible for the researchers to study every hotel, hence the need for a sample. As noted by Cavana, *et al.* (2009), where there exists compelling reasons to study only some elements within a given population, there is the need for the researcher to go through a systematic process, referred to as sampling. There is therefore the need to select a sufficient number of elements from the population so that by studying them and understanding their properties or characteristics, it would be possible to generalize the properties or characteristics to the population elements.

The researchers used a sample size of 102 respondents selected from ten (10) hotels and guest houses. This figure is considered representative enough since the numbers of hotels within the Kumasi Metropolis are not many. Also, the exact population of workers in the hotels is not documented and hence not known to the researchers. The target population of interest consists of staff under housekeeping, front office, laundry and the management of the hotels and guest houses.

Ethical Considerations

All researches have a responsibility to address ethical issues and this research is no exception. There are various dimensions to research ethics which include social and moral accountability (Canvan et al., 2009). With regard to the former, the researcher ensured that all work borrowed from other authors were duly acknowledged in the text. Also, the researcher is careful to include all relevant data and no omission or addition purposely made to persuade readers in favour of any particular argument. Concerning moral accountability, appropriate permission and consent were sought from all respondents; allowing them to willingly participate in the research without any form of compulsion or treachery. The researchers equally informed them of the true purpose of the research and further assured them of a great sense of confidentiality.

Data Analysis

Using the Statistical Package for Social Sciences (SPSS), the questionnaire was checked and coded into the software for analysis. After the preliminary tests, the data was analysed using the same software

and to ensure for validity and reliability, various tests were performed. The analysis includes the descriptive analysis where the results were presented in tables

3. ANALYSIS AND DISCUSSIONS

and figures and further analysis done where necessary.

Descriptive Analysis

	Number of responses	Percentage (%)
Gender of respondents		
Male	39	38.24
Female	63	61.76
Age group of respondents (years)		
Less than 20	1	0.98
20-30	15	14.71
31 - 40	51	50.00
41 – 50	34	33.33
51 - 60	1	0.98
Marital status of respondents		
Married	78	79.59
Single	20	20.41
Level of education		
No formal education	11	10.78
Basic education	18	17.65
Secondary	32	31.37
Tertiary	41	40.20

Source: Field Survey, 2018

The results indicate that constitution of the biological sex of the respondents were basically in the distributed in the ratio of 1:2 respectively for male and female. Particularly, whereas 38.24% of the respondents male. female were the respondents represented in the study sample were 61.76%. The higher percentage of respondents over female their male counterparts could be as a result of the lack an equal interest of males in the hospitality industry as compared to females.

Age wise, majority of the respondents were between the ages of thirty-one and fifty inclusive. This was evidenced by 50.0% of the respondents who indicated that they were between the ages of thirty-one and forty whilst 33.33% of them were within the age group of 41 - 50. However, respondents who were either 30 years or below constituted less than twenty percent (20%) of the total sample.

Both married couples and single couples are both interested in working with the hospitality industry. The results as presented in Table 1 indicate that the 79.59% of the respondents what constituted the majority were married whilst the 20.41% of the total sample were single.

With respect to the educational status of the respondents, it was observed that majority of the workers in the hospitality industry had obtained a tertiary education certificates as at the time of the study as was evidenced by 40.2% of the respondents. Also, respondents who had obtained a secondary educational status and were represented in the study sample were 31.37% whilst 17.65% had basic education. However, 10.78% of the respondents had no formal education according the results in Table 1.



Figure 1: Category of hospitality industry within the Bolgatanga Municipality Source: Field Survey, 2018

As shown in Figure 1, 60.4% of the respondents in the study sample were from the hotels whilst 39.6% were from the guest

houses. It was also discovered that all the hotels and guest houses included in the study had license as at the time of the study.



Plate 1: Toilet facilities within the hotels and guest houses Source: Field Survey, 2018

Plate 1 displays a sample of the type of toilet facilities and layout of bathrooms within the

hotels and guest houses. Whilst the toilet compartment is separated from the bathroom

in most of the hotels, the layout within the guest houses was slightly different as some of them had joint toilet facility with the bathroom. Also, the bathroom outlet as observed from the top right corner of Plate 1 shows a wide opening which can be a passage for reptiles into the facility.

Food handling



Plate 2: Food handling and Kitchen layout



Plate 3: Sanitary condition of stoves

Source: Field Survey, 2018

Source: Field Survey, 2018

In terms of handling food, most of the spaces available in the kitchen were smaller than the equipment that they had acquired for the preparation of foods. The placement of the gas cylinders in some of the hotels and guest houses were not appropriate as Plate 2 illustrates. Due to the lack of store rooms for the storage of foodstuff in the most of the establishments, provisions were made as displayed in Plate 2. It was also observed that the stoves were not clean enough in most of the establishments visited (Plate 3).

Fixtures and Cleanliness



Plate 4: Bedding and fixtures

Source: Field Survey, 2018

The bedroom fixtures as displayed Plate 4 was considered to be satisfactory in most of the establishments as the rooms were tiled, and kept clean most of the times. It was also observed that there was a foot carpet in every bedroom, a study table as well as a dustbin.

The operational definition of fixtures in the study includes toilet facilities in the study. It was observed from the study that all the hotels and guest houses were using flush toilets as at the time of the study.



Figure 2: Waste disposal systems in the hospitality industry

In assessing the waste disposal systems available in the hospitality industry, the study discovered that the hotels and guest houses in the Bolgatanga Municipality either had a solid waste disposal system, liquid waste disposal system or both. As shown in Figure 2, 47.06% of the respondents in the hotels indicated that both solid and liquid waste disposal systems were available and in use within the facility whilst 38.24% reported that the guest houses used both waste disposal systems. A close observation of the results in Figure 2 indicates that the hotels highly considered the use of both solid and liquid waste disposal systems as compared to the guest houses.



Figure 3: Frequency of disposing waste content from containers

Though both the hotels and guest houses had either a solid waste disposal system, a liquid disposal system or both, it was discovered that only 43.14% of the respondents frequently empty the waste containers on daily basis. Whilst 9.8% of the respondents indicated the waste containers were always emptied immediately after they are filled up,

6.86% reported that the waste containers were emptied twice a day. However, 40.2% of the respondents indicated that the contents of the waste containers were disposed using other methods besides emptying on either daily basis or twice a day (Figure 3).

	Number of responses	Percentage (%)
Once a day	50	49.02
Each time after it is empty	50	49.02
Others	2	1.96
Total	102	100.0

Table 2: Disinfecting waste containers in the hotels and guest houses

Source: Field Survey, 2018

Disinfecting the waste containers within the hotels and guest houses helps to improve the sanitation conditions of the environments. It was discovered from the study that waste management staff of the hospitality industry either disinfect the waste containers on a daily basis or each time after the contents of the waste containers are emptied. This was

respectively	evidenced	by	49.02%	of	the	respondents	as	presented	in

Table 2. However, 1.96% of the respondents reported that there were other modes of disinfecting the waste containers.

	Number of responses	Percentage (%)
Anywhere, within easy reach	1	1.04
At each workstation	1	1.04
In specified, designated, closed place	94	97.92
Total	96	100.0

Table 3: Storage of disinfectants in the hotels and guest houses

Source: Field Survey, 2018

Inasmuch as disinfectants keeps the hotel environment clean and neat always, disposing its content can be harmful to the human health. It was against the backdrop of this harmful nature that the study sought to assess the storage practices as used by the hotels and guest houses within the Bolgatanga Municipality. Majority of the respondents disclosed that waste management staff of the hotels and guest houses store disinfectants in specified, designated and closed areas within the facility. However, only 1.04% respectively indicated that disinfectants were stored either at the workstation of anywhere within the easy reach of the housekeeping staff



Plate 5: Cleaning materials

Source: Field Survey, 2018

The study also observed that cleaning materials were sometimes left in the open. Napkins and other materials were also seen on top of the walls in some of the guest houses. Plate 5 shows a sample of the practices of some of the waste management

staff of the guest houses.

There is creating frequency within the never and Such the use president			
	Number of responses	Percentage (%)	
Once daily	58	56.86	
Twice daily	8	7.84	
As and when dirty	16	15.69	
Others	20	19.61	
Total	102	100.0	

$T 11 4 C1 \cdot$	C	$\cdot 1 \cdot 1 \cdot 1 \cdot 1$	1 1 1	
Ιαρίο Δ. Γιρανινό	troauonev	within the hote	l and augst hous	0 nromicoc
$T u u u c \tau$. Ciculling	neanenev		<i>i unu zuesi nous</i>	

Source: Field Survey, 2018

Cleanliness within the premises of the hotel and guest houses is as important as keeping the customers satisfied with the services of the facility. The study discovered that cleaning the premises of the hotels and guest houses on a daily basis was particularly done in most of the facilities as reported by 56.86% of the respondents. However, it was indicated that whilst some of the hotels and guest houses did clean the premises of the facility as and when dirty (15.69%), others cleaned the facility twice daily (7.84%). However, 19.61% of the respondents indicated that there were other ways in which the premises of the hotels and guest houses were cleaned on regular basis.

4. CONCLUSION

In conclusion, accommodation is a rapidly growing sector in the hospitality industry and most of the hotels and guest houses in the study community concentrate on the cleanliness of the bedrooms either than the restaurant section of the facility. There were no much differences in the handling of food in the kitchen, the storage pattern as well as the state of the cooking materials. Generally, the hygienic nature of the hotel and guest house premises was clean especially the bedrooms.

5. RECOMMENDATIONS

- i. findings Based on the and conclusion, the study recommends that management of hotels and guest houses should consider the health needs of the customers by keeping the food and kitchen environments clean. The detergents and disinfectants should also be kept in dry, designated areas.
- ii. It was also recommended that a further study should be conducted to consider the behavioural activities of food handlers, housekeepers and the general employees in an attempt to provide a health and clean working environment for customers of the hotels and guest houses.

REFERENCES

- Atul. S. (2008). New Trends in Tourism and Hotel Industry. New Delhi: Navyug Publishers.
- Bohdanowicz, P. (2006). Environmental awareness and initiatives in the Swedish and Polish hotel industries—survey results. *International Journal of Hospitality Management*, 25(4), 662-682.
- Bohdanowicz, P., & Martinac, I. (2007). Determinants and benchmarking of resource consumption in hotels— Case study of Hilton International and Scandic in Europe. *Energy and buildings*, 39(1), 82-95.
- Brown, M. (1996). Environmental policy in the hotel sector: "green" strategy or stratagem?. *International Journal of Contemporary Hospitality Management*, 8(3), 18-23.
- Canavan, J., Coen, L., Dolan, P. and Whyte, L. (2009).h Privileging Practice: Facing the Challenge of Integrated Working for Outcomes for Children. Children and Society, 23, pp 377-388.
- Chung, L. H., & Parker, L. D. (2010). Managing social and environmental action and accountability in the hospitality industry: A Singapore perspective. In *Accounting Forum* (Vol. 34, No. 1, pp. 46-53). Elsevier.
- Cooper, C., Fletcher, J., Fyall, A., Gilbert, D. & Wanhill Stephen. 2008. Tourism principle and practice. 4th ed. Harlow, England: Prentice Hall.
- Daramola, O. (2012). Clapping with one hand: the case of urban environmental sanitation practices in Nigeria. Journal of Applied Technology in Environmental Sanitation, 2(4).
- Despretz, H. (2001). Green Flag For Greener Hotels. Valbonne: European Community.

- FAO/WHO (2003). Risk Profile For Enterohemorragic E. Including The Identification Of The Commodities Of Concern, Including Sprouts, Ground Beef And Pork. Codex Alimentarius Commission.
- Essex, S. & Hobson, K. (2001). Sustainable Tourism: A View from Accommodation Business. The Service Industries Journal, 21(4): 133-146
- Foskett, D., & Ceserani, V. (2007). *Ceserani* and Kinton's the Theory of Catering. Hodder Arnold.
- Goodall, B. (1994). Environmental auditing: current best practice (with special reference to British tourism firms). In *Tourism: The state of the art* (pp. 655-664). John Wiley Chichester.
- Han, H., Hsu, L. T. J., Lee, J. S., & Sheu, C. (2011). Are lodging customers ready to go green? An examination of attitudes, demographics, and ecofriendly intentions. *International Journal of Hospitality Management*, 30(2), 345-355.
- Liu, P., & Sanhaji, Z. (2010). Green initiatives in the US lodging industry. *Cornell Real Estate Review*, 8(1), 11.
- Mara, D., Lane, J., Scott, B., & Trouba, D. (2010). Sanitation and health. *PLoS medicine*, 7(11), e1000363
- Masangwi, S. J., Ferguson, N. S., Grimason, A. M., Morse, T. D., Zawdie, G., & Kazembe, L. N. (2010). Household and community variations and nested risk factors for diarrhoea prevalence in southern Malawi: a binary logistic multi-level analysis. *International journal of environmental health research*, 20(2), 141-158.
- Mohini, S. (2004). Institutional Food Management. New Delhi. New Age International (P) Ltd.

- NEHPR (2007). National Environmental Health Practice Regulations. (Revised). Honourable Minister of the Federal Ministry of Environment and Housing, Abuja.
- Olsen, S. J., MacKinnon, L. C., Goulding, J. S., Bean, N. H., & Slutsker, L. (2000). Surveillance for foodbornedisease outbreaks—United States, 1993–1997. MMwR CDC Surveill Summ, 49(1), 1-62.
- Page, S.J. (2007). Tourism Management: Managing for Change. Oxford: Heinnemann.
- Patton, M. (1990). *Qualitative Evaluation Methods*, Third edition Sage Publications Beverly Hills, CA.
- Pattron, D. D. (2006). Aspergillus, health implication & recommendations for public health food safety. *Internet Journal of food safety*, 8, 19-23.
- Ramsley, J. and Ingram, H. (2004). Developing Hospitality Properties and Facilities. (2nd ed). Oxford. Elsevier Butterworth-Heinemann.
- Rodríguez-Antón, J. M., del Mar Alonso-Almeida, M., Celemín, M. S., & Rubio, L. (2012). Use of different sustainability management systems in the hospitality industry. The case of Spanish hotels. *Journal of Cleaner Production*, 22(1), 76-84.
- Rubin, A., & Babbie, E. R. (2001). Research method for social work. *Pacific Grove*, CA: Wadsworth.
- Shastri, S., Raval, P. M., & Mapuskar, S. V. (2010). Review of sustainable waste

water treatment option for urban sanitation facilities in developing countries, case study: Upper Bhima Basin, India. Journal of Applied Sciences in Environmental Sanitation, 5(4).

- United Nations Environmental Programme (UNEP), (2005). Annual Report 2005. Retrieved from <u>http://www.unep.org</u>
- WHO (2005). World Health Organization Report. (www.who.int/whr/2005/en/statistica 1 Annexc p195)
- UNICEF (1995). UNICEF strategies in water and environmental sanitation. (Document E/ICEF/1995/17 13th April 1995)
- WHO (2007). Food Safety and Food-borne Illness. Fact Sheet 237, www.who.int/mediacentre/factsheets /fs237/en/www.who.int/entity/foodsa fety/publication/consumer
- World Health Organization (2007). Fact sheet No 237. Food Safety and Foodborne Illness. Google internet, November, 2008.
- Yin, R. K. (2003). Case Study Research Design and Method (3rd ed). London: Sage Publications.
- WHO (2002). Recommendations of the Pan-European Conference on Food Safety and Quality, 25 – 28. Regional Committee for Europe. Fifty-second session.