

The Significance of Hazard Analysis and Critical Control Point (HACCP) System to Promotion of Food safety at Hôtel Des Mille Collines–Kigali - Rwanda

Steven Mangwa Kalisa

Department of Tourism Studies

University of Tourism, Technology and Business Studies-Rwanda

Abstract: Hazard Analysis and Critical Control Point (HACCP) is designed to fight safety hazards potentially present in food throughout the food handling process. To promote food safety in Hotels and other food service establishments, the government of Rwanda through Rwanda Food and Drugs Authority put in place different regulations that promote HACCP. The regulations require the management of food service businesses to abide by the set requirements as regards to all activities of receiving, inspecting, handling, segregating, preparing, processing, storing and transportation of food all of which culminate into promotion of food safety. This study sought to analyze the significance of hazard analysis and critical control point (HACCP) to promotion of food safety in Hôtel des Mille Collines, Through documents review data collection method, the study found out that to promote food safety in Hôtel des Mille Collines, HACCP has been integrated in the food preparation process through different steps. The first step is conducting a Hazard Analysis through evaluating food preparation processes to identify where hazards can be introduced. The second step of HACCP application is identifying the Critical Control Points (CCPs). This step involves identifying the different steps in food preparation process where controls can be applied to prevent or eliminate the hazards. Another step done by Hôtel des Mille Collines to promote food safety is establishing a maximum or minimum limit for temperature in fridges where perishable food is kept before being prepared for consumption. Other CCPs that are practiced by Hôtel des Mille Collines are frequent cleaning/maintenance, monitoring personal standards and hygiene of employees. Basing on the study findings, the researcher concludes that Hôtel des Mille Collines has made several attempts to implement HACCP in its food preparation so as to promote food safety.

Keywords : HACCP, Food Safety, Hotel.

INTRODUCTION

According to Carlos (2017), the food enjoyed in hotels all around the world goes through a tedious process of transportation, storage, and handling to move from plant to plate. This author explains that this process creates many opportunities for bacteria to infiltrate and contaminate food products, which undermines the safety of the food. The same author further states that hotels that accidentally serve contaminated food put their customers at risk of developing foodborne illness and disease. This situation often brings about serious damage to a hotel's reputation and image, which consequently negatively impact the

hotels' food sales. To avoid this situation, hotels try to use the Hazard Analysis and Critical Control Points (HACCP) system. Karukire et al (2018), describes a Hazard as a biological, chemical or physical agent or condition of food that has the potential to cause an adverse health effect. The above author gives examples of critical control points (CCPs) as thermal processing, chilling, testing ingredients for chemical residues, product formulation control, and testing food for metal contaminants. Nzaire (2009), further explains that critical control points in hotel restaurants are located at any step where hazards can be either prevented, eliminated, or reduced to acceptable levels.

Smith and Nadine (2005), observed that Hazard Analysis and Critical Control Points is a preventative food safety system in which every step in the manufacture, storage and distribution and service of a food product is scientifically analyzed for microbiological, physical and chemical hazards. The authors further remarked that a Critical Control Point is a step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level. A critical control point is a step in the process of manufacturing or preparing food in which the right procedure can minimize or remove a potential health hazard such as a food-borne illness. Hazard analysis is therefore, a process of collecting and evaluating information on hazards and conditions leading to their presence to decide which are significant for food safety which should be addressed in the HACCP plan (Smith and Nadine (2005).

Van Schothorst and Jongnell, (2019), pointed out that HACCP is an internationally recognized system for reducing the risk of safety hazards in food and that a HACCP System requires that potential food hazards which can be biological, chemical or physical hazards are identified and controlled at specific points in the process. The above authors revealed that HACCP system was introduced approximately 20 years ago as a means to control food-related hazards and it has since then become increasingly important at national and international levels. The authors further observed that over the years, hotels have gained a lot of experience in the application of HACCP and many lessons have been learned.

Carlos (2017), remarks that the key object of implementing HACCP rules in Hotels is to prevent food from becoming contaminated and causing food poisoning and further reveals that the major contamination sources of food in hotel restaurants are water, air, dust, equipment, sewage, insects, rodents, and employees. This author also indicates that to minimize food contamination and henceforth promote food safety, hotels put in place HACCP rules to ensure enhance food safety quality. The HACCP rules to ensure the processing of quality food are washing hands between steps, sanitizing work surfaces, using separate cutting boards for raw meats, vegetables and cooked foods, cooking foods to safe temperatures and keep hot foods hot and cold foods cold. These rules are intended to ensure that handling, preparing and storing food is done in a way to best reduce the risk of hotel clients becoming sick from foodborne illnesses.

According to The World Health Organization (WHO, 2020), to promote food safety in Hotels, utilizing HACCP is important because it prioritizes and controls potential hazards in food production. The WHO further indicates that by controlling major food risks, such as microbiological, chemical and physical contaminants, the food service businesses like hotels can better assure consumers that its products are as safe as good science and technology allows. When the customers are rest assured that the food served by a particular is safe, then they are likely to frequent that hotel for meals and even recommend it to other potential clients.

HACCP-based systems (including good hygienic practices) are important for all food businesses along the food chain. However, in some countries HACCP has been most successfully introduced in large food businesses supplying export markets, perhaps because the adoption of HACCP systems is sometimes a basic requirement in major international food markets. Nevertheless, governments increasingly acknowledge that small and/or less developed businesses (SLDBs) like hotels provide an important source of food and contribute to the national economy, and the importance of consumer protection applies equally to all food businesses (Carlos, 2017)

Matt (2020), noted that the HACCP system has several advantages in the promotion of food safety in hotels because it is used as the approach of controlling critical points in food handling to prevent food safety problems. The above referred to author remarks that the system has the capacity to identify specific hazards and measures for their control to ensure the safety of food because it's based on prevention and reduces the reliance on end-product inspection and testing. The author further observed that the HACCP system can be applied throughout the food chain from the primary producer to the consumer which makes it a strong tool for promoting food safety in hotels.

Matt (2020), further observed that besides enhancing food safety, there are other several benefits of applying HACCP in food service in hotels. These benefits include more effective use of resources, savings to the food and more timely response to food safety problems. Other benefits are that, hotel owners can reduce the risk of harm to the public by rightly identifying critical control points in time. The implications of this author's findings are that the improved safety conditions of food in hotels due to HACCP system implementation can greatly increase food sells, thereby promoting the hotels' food and beverage service department due to increased customers' confidence in food safety.

This study analyzed the significance of hazard analysis and critical control point (HACCP) system to promotion of food safety at Hôtel des Mille Collines. This hotel is one of the oldest hotels in Kigali city, the capital of Rwanda which is highly visited by clients due to its convenient location in the city center and longtime of existence. The Hotel was built by the Belgian airline company called Sabena built in 1973 in the central business district of Kigali, the capital city of Rwanda. In 2005, the hotel was sold to MICHO Holdings Company which owns it to date, but the management remains in the hands of hotel management experts

from Belgium. The research was motivated to carry out this study in the hotel because of the conviction that it could be at the forefront in HACCP system implementation due to its background which is foreign ownership and management.

International food safety situation in Hotels

The food safety situation has been researched by several authors including United Nations Agencies like the World Health Organization (WHO). According to the WHO, unsafe food prepared and served in Hotels containing harmful bacteria, viruses, parasites or chemical substances, causes more than 200 diseases, ranging from diarrhea to cancers. The WHO findings revealed that diarrhea diseases are the most common illnesses resulting from the consumption of contaminated food, causing 1 million people to fall ill and 23,000 deaths every year. The 2015 World Health Organization (WHO) report on the estimates of the global burden of Hotels generated foodborne diseases, presented the first-ever estimates of disease burden caused by 31 foodborne agents (bacteria, viruses, parasites, toxins and chemicals) at global and regional level.

The WHO reports showed that The International Conference on Food Safety held in Addis Ababa in February 2019, and the International Forum on Food Safety and Trade held in Geneva in 2019, highlighted the importance of food safety hotels in achieving the Sustainable Development Goals. At the said conferences, Governments were requested to make food safety a public health priority, and play a key role in developing policies and regulatory frameworks, and establishing and implementing effective food safety systems in especially hotels and other commercial food service establishments like restaurants and fast food shops (WHO, 2020)

The World Health Organization strongly recognizes that foodborne diseases contaminated from hotels are enormous in all parts of the world, and the toll in terms of human life and suffering is great. This UN agency which is responsible for human health promotion indicated that contaminated food contributes to 0.5 million cases of diarrhea in hotel clients each year, resulting in more than three thousand deaths and the food borne deaths and illnesses are prevalent in both the developed and developing countries (WHO, 2020)

A study one by Karukire et al (2018), showed that there are a lot of food safety challenges all over the world, the vary by continental bloc, due to differences in income level, diets, local conditions, and the level of the prevalence of health infrastructures and services. The authors indicated that in developing countries, many of which are found in Africa, Latin America and Asia, the food producer and the consumer often have a close connection. In those countries, there are fewer processed and packaged foods; most fresh food is traded in traditional markets; and street vendors supply much of the food consumed outside the home. Perishable food is often prepared and consumed immediately, and there is minimal storage of prepared foods. Food safety concerns in these countries typically include, the inappropriate use of agricultural

chemicals, the use of untreated or partially treated wastewater, the use of sewage or animal manure on crops, the absence of food inspection, including meat inspection, a lack of equipment., such as adequate refrigeration · poor hygiene, including a lack of clean water supplies in some hotels (Karukire et al,2018).

The WHO (2020), reported that in 2002, in China, more than 200 hotel clients fell sick and 38 died from the intentional contamination of food in hotels · In 2000, food poisoning linked to milk products produced in the Osaka factory of the Snow Brand Company contaminated 14,780 persons, making this one of Japan's largest food poisoning outbreaks ever · According to Van Schothorst and Jongnelle, (2019), foodborne diseases resulting from eating food in hotels are common in most countries of the South East Asian Region. The authors revealed that microbiological contamination of food and water is a major cause of deaths and illnesses due to diarrhea. Region-wide, 130,000 people die each year from diarrheal diseases after consuming contaminated food and water from the regions hotels. The above authors further commented that cholera, which has been controlled in many parts of the world, has been a major health concern in this region for decades, especially in Bangladesh and India. The authors established Cholera outbreaks generally are linked to contaminated water, but transmission can occur through contaminated foods served in the regions hotels.

The WHO (2020), reported that many countries of Africa have not established surveillance or reporting mechanisms adequate to identify and track foodborne diseases resulting from food eaten in hotels and as a result, there are no estimates of the rates of human sickness that is linked to foods in especially the Eastern Mediterranean Region. According to studies jointly done by WHO and Food and Agriculture Organization (FAO), in many parts of Africa, foodborne diseases are generally perceived as mild and self-limiting illnesses, and constitute a fact of daily life in the continent and as a result, statistics of food borne diseases resulting from food eaten in hotels is missing in many countries of Africa (Karukireetal, 2018)

In Europe also food safety challenges in hotels are experienced and as a result, over the past 10 years, hotel food safety policy has been reshaped in response to a series of problems. The first problem was the bovine spongiform encephalopathy (BSE) crisis in Britain which was followed by dioxin contamination of animal feed which culminated in the contamination of several meat products in northern Europe. As a response to food security problems faced by the European Union (EU), a number of food safety regulations were designed to harmonize their food safety programs. For instance, the member states of the EU have developed an integrated approach to food safety intended to assure a high level of protection for human life and health. The measures adopted to curtail food safety issues by the EU have been using farm-to-table measures and monitoring to implement improvements in food safety, animal health and welfare, and plant health. The EU has further given consumers a legal right to safe food to accurate and honest information on food safety and is trying to harmonize existing food safety promotion efforts (WHO, 2020).

To further promote food safety in Europe, in 2002, the European Parliament and the Council adopted a regulation establishing the general principles and requirements of Food Law. The aim of adopting this resolution was to provide a clear and logical way which leads to the development of food legislation and to set common clear lines, general rules, and obligations covering all stages of food and feed production and distribution. The EU food law clearly calls for the need for proper scientific advice with emphasis on the fundamental principles of excellence, transparency, and independence. To facilitate the implementation the major requirements of the Food Law by farmers, hotel businesses, and national authorities of, a guidance document has been issued by the relevant authority. The inclusion of feed in the scope of the food law was necessary because feed contamination has been at the root of many major food scares of the past decade in Europe. The law makes food safety the clear responsibility of food and feed businesses (WHO, 2020).

In addition to the Food law EU has further put in place legislation on such food safety issues like pesticide use, food supplements, colorings, antibiotics and hormones in food production. The EU has also put rules on hygiene and stiff procedures on release, marketing, labeling and traceability of crops and foodstuffs containing genetically engineered (GE) organism sting national requirements.(WHO, 2020).

To further promote food safety the EU is continuing to review food safety hygiene rules. It intends to publish new regulations which will standardize and make simple the existing detailed and complex food safety and hygiene requirements already existing in a number of earlier directives covering the hygiene of foodstuffs, the production and placing on the market of products of animal origin. The new regulations are planned to cover all food operators throughout the food chain who will be provided with additional effective equipment to manage food safety in especially hotels.

The planned EU revised rules food safety promotion are to be based on a number of important activities. Those activities will be implementation of a "farm-to-table" approach, introduction of a Hazard Analysis and Critical Control Point (HACCP) system for all food processors to assure that adequate safety procedures are identified, implemented, maintained, and reviewed. Other measures will be registration or approval of certain food establishments, development of guides for good hygiene practices (GHPs) and guidelines for the application of HACCP principles by food processors (WHO, 2020).

The North America continent is thought to have one of the most advanced hotels food safety programs. However, the region faces significant challenges also, but of recent the situation has got better. The better situation has been brought about by the introduction of Hazard Analysis and Critical Control Point (HACCP) systems in seafood, meat and poultry, plants. Furthermore, the improved food safety situation has been an outcome of very much expanded food testing programs which have significantly reduced the disease burden from some products in the country's hotels. Intensified surveillance also brought about

a reduced incidence of foodborne disease in most hotels of the U.S in 2018 (Matt, 2020)

General Food safety situation in Rwanda Hotels

To promote food safety in Hotels and other food service establishments, the government of Rwanda through Rwanda Food and Drugs Authority has put in place different regulations. The regulations require the investors in food service businesses to abide by the set requirements as regards to all activities of receiving, inspecting, handling, segregating, preparing, processing, storing and transportation of food are conducted in a hygienic manner and sanitation of the food premises and quality control system are supervised by a qualified and authorized person (Mudingu, 2018)

Furthermore, the food safety guidelines set by the government of Rwanda demands that suitable measures be taken to ensure that raw materials and ingredients are cleaned, inspected and segregated to ensure that they are clean, wholesome and fit for processing into food and water used for cleaning of food products is of potable quality. Furthermore, the regulations call for the containers and carriers of raw ingredients to be inspected at the time when the ingredients are delivered to the food premises and when ice is used with food products, it is made from potable water and prepared, handled, stored and conveyed in such manner as to protect it from contamination. (Mudingu, 2018)

The food safety regulations of Rwanda also instruct that food processing areas and equipment shouldn't be used to process animal feed or inedible products unless there is no reasonable possibility of contaminating the human food. The regulations also demand that chemicals, micro-biological or extraneous materials testing products are utilized where necessary to identify sanitation failures or food contamination and that all food and ingredients that have become polluted are not accepted or adequately treated or processed to remove the pollution. The regulations also direct that storage and transporting of food be done under conditions that should prevent contamination, including development of pathogenic or toxigenic micro-organisms or both and packaging processes and materials are handled in such away so as not to transmit contamination to the products and provide enough protection from contamination (Mudingu, 2018)

The food safety regulations of Rwanda also require that any proprietor of a food premises to take all appropriate steps and protection measures to ensure that not any person suffering from any communicable disease or having boils, sores, infected wounds, handles food. This regulation is intended to protect food from becoming contaminated by a sick person or to prevent the transmission of disease to other employees working in food service premises. The same regulation also instruct all food handlers to undergo thorough medical examination is by an authorized government medical officer prior to their employment and to undertake such health examinations every six months. It's obligatory for the employer of food handlers to carefully keep the medical

records of these employees for inspection purpose by the authorized government health workers and regulatory authorities (Nkurunziza, 2018)

Rwanda's food safety regulation require that all persons while working in direct contact with food, food ingredients or food contact surfaces comply with hygienic requirements set by Government. Those hygienic requirements are wearing clean outer garments and washing their hands thoroughly well, removing all jewelry and taking any other necessary precautions to prevent contamination of food with micro-organisms of foreign substances. Other hygienic requirements that are required of food handlers are refraining from smoking, sniffing, sneezing, chewing or using tobacco in areas where food is prepared, stored or handled. The food handlers who use gloves are further required to maintain them in a tidy and hygienic condition and wear appropriate headdress like hair net, head band or cap. The food handlers are obliged to refrain from storing their clothing or any other personal belonging, eating food, drinking beverages, washing equipment or utensils in areas where food prepared (Nkurunziza, 2018).

The other regulations set by the government of Rwanda to promote food safety are prohibiting business people from using any premises for food service before ensuring that there is provision of adequate sanitary conveniences for employees. The investors in food services are also obliged to have adequate separate sanitary accommodation for public use, ensure that the water supply to the premises is derived from an adequate source and the water should be sufficient for all food service related operations. At the food premises, there must be hot and cold running water at all areas where the processing of food, cleaning of equipment, utensils and containers are carried out like in food stores and kitchen sinks. (Nkurunziza, 2018)

The food safety regulations of Rwanda also require that the drainage of effluents from hotels and food service establishments be done through an adequate sewerage system or disposed of through other adequate and approved means to minimize food poisoning. The same regulations indicate that the plumbing in hotels and other food service outlets be of appropriate size and design when they are installed and should be maintained well so that they are able to handle sufficient quantities of water to supply areas where the water is required in a hotel or any food service establishment. The food safety regulations of Rwanda requires hotels and other food service establishments like restaurants and take away shops/kiosks to have proper sewage and liquid disposal waste mechanisms, provide adequate floor drainage in all areas of hotel kitchens and restaurants. The hotel owners are manage refuge in such a way its well conveyed and disposed of well such that harmful or poisonous smell does not come up anywhere around places where food is prepared and or served.(Republic of Rwanda, 2017)

The Rwanda food safety regulations direct all food service establishments to be located away from dirty places and industrial areas because such places are potential sources of agents of food contamination. The construction design of

food premises should be in such a way to make it easy to maintain and enable sanitary food production. Furthermore, the food service premises and the facilities installed therein must have enough space for storage of materials for those operations which may cause the contamination of food. These establishments are also required by the food safety regulations to have sufficient lighting in hand washing areas, dressing and locker rooms, toilets and in all areas where food or food ingredients are inspected, processed or kept and where tools and utensils are cleansed. The Rwanda food safety regulations further direct food service facilities to have adequate ventilation or control equipment to minimize bad smell and harmful fumes or vapours in areas where such smell and fumes can contaminate food. The food safety regulation of Rwanda clearly state that food service establishment' floors, walls and ceiling should easily cleanable and repairable whenever necessary. To further promote food safety in Rwanda, the Ministry of Health together with other concerned and relevant government institutions, periodically carry out health inspections in food service premise such as hotels, motels, and restaurants to ensure that the food safety measures are taken adhered to in such places (Republic of Rwanda, 2017).

Nkurunziza (2018), observed that much as Rwanda government has food safety regulations, as well as guidelines and standards which are enforced by hygiene and food safety inspections teams who are available in the whole country, food safety still has some short comings. The author remarked that a big number of restaurants in Rwanda particularly in small towns and remote areas start operating before getting licenses. The same author remarks that there is a close relationship s between the possession of license, and the food safety conditions of a restaurant. Operating without licenses is attributed to lack of strict enforcement of food safety regulations in those areas. This state of affair, results into a big number of restaurants to operate in poor hygiene conditions which brings about food contamination which finally compromised food safety in such restaurants. On the contrary, in many countries, especially the developed ones the HACCP process is examined and an operation license is given when the licensing team has ascertained that HACCP mechanism has been put in place by restaurant before obtaining a license (Rwanda Standards Board, 2019).

The Rwanda Standards Board remarked that lack of hygiene standards or unclear standards to comply with in restaurants is a challenge to those who operate the food business. The same challenge is faced by those who conduct food safety inspections because even where those standards are available, they are not clear or detailed. The board illustrates this observation by explaining that the building requirements for a house serving as restaurant is having a good ventilation but the hygiene and health inspection team may not be able to measure or to confirm whether or not a restaurants meets these requirements. As a result of such challenges, a big number of food service premises in different parts of Rwanda operate without complying with standards as it is supposed to be, a condition which compromises food safety (Rwanda Standards Board, 2019).

Much as the government of Rwanda has clear food safety regulations, some Hotels in Rwanda are not yet assure that the food safety is good enough to be prepared and served to their customers. .because there are still some food producers like some abattoirs do not fulfil food safety requirements, As a result of this, those Hotels still use food that is imported from other countries. For example there are hotels in Rwanda that import meat from Botswana because local abattoirs cannot fully guarantee food safety, even though they meet the minimum standards. . In Rwanda, some food producers like some abattoirs do not fulfil food safety requirements For example, by 2019, none of the operational abattoirs in the country had an HACCP certificate, either due to negligence or because they could not fulfill the basic requirements. (Rwanda Standards Board, 2020)

Due to lack of application of HACCP procedure in food processing, cases of food poisoning after eating food from hotels, in July 2019 a number of people in the Rwanda's Eastern province were admitted in hospitals for medical treatment after being served contaminated food by a local hotel. One of those people died and 45 others experienced serious health condition as a result of food poisoning. Following this incident, the investigation done later established that the hotel was found to be operating in a very unhygienic environment because from the kitchen to the toilets the situation was pathetic. Additionally, in the January 2020, a hotel Restaurant in Kigali, city, the capital of Rwanda was temporarily closed on by city authorities after its kitchen was found in a bad state with poor drainage and no refrigerators. As result of this hotel kitchen unhygienic situation, a Hygiene Inspection Week was launched in the three districts that make up the City of Kigali (CoK). The areas given priority during the inspection are storage areas, toilets, kitchens and the people in charge of preparing and serving food. The inspection findings were that other hotels and restaurants inspected during that week were found to have substandard kitchens. Away from that, many locals in Rwanda will warn you about the risk of catching 'amibe' (intestinal worms) if you regularly eat in local restaurants. These experiences, among others, have left many people in Rwanda wondering whether local restaurants and hotels really meet standards as far as hygiene and cleanliness are concerned. (Rwanda Standards Board, 2020)

HACCP implementation in Hôtel des Mille Collines

The Belgian airline company called Sabena built the Hôtel des Mille Collines in 1973 in the central business district of Kigali city, the capital city of Rwanda. In 2005, the hotel was sold to MICHO Holdings Company which owns it to date. However, the management of hotel continues to be in hands of hotel management experts from Belgium. The foreign management of the Hotel motivated the researcher to select this hotel for this particular because of the feeling that the HACCP is highly likely to be applied, unlike in the locally managed hotels. The four-star hotel has 112 rooms, a bar, a café, three conference rooms, a restaurant, a swimming pool, tennis courts and a range of business facilities. The sleeping rooms include a double bed, balcony, separate

bathroom, seating and storage for personal effects. Each offers a variety of modern amenities, such as a flat screen TV, mini-bar, air conditioners and internet (Mudingu, 2018).

To ensure food safety in Hôtel des Mille Collines restaurant, HACCP has been integrated in the food preparation process. The first HACCP step has been conducting a Hazard Analysis. The analysis has involved evaluating food preparation processes to identify where hazards can be introduced. The hazard identification is being done in two steps, first the identification of hazards, then an evaluation of the hazard. The hazard evaluation is a determination of the degree of risk to the user from the identified hazard. Once the hazard is identified and evaluated then identification of critical control points follows. These are points where the hazard must be controlled so that it does not present a risk to the end user (Karukire et al, 2018).

The second step of HACCP application is identifying the Critical Control Points(CCPs). This step involves identifying the different steps in food preparation process where controls can be applied to prevent or eliminate the hazards. At each identified critical control point, a preventive measure is identified and the hazard prevented. The different CCPs that are taken into consideration to insure food safety in Hôtel des Mille Collines are at food purchasing where food suppliers are checked by looking at their food production, sourcing and traceability, particularly for raw meats, poultry, fish, milk and others and their ability to maintain acceptable HACCP practices. The Hotel only purchases its raw food supplies from companies who are licensed by Rwanda Development Board which is government department that licenses and regulates businesses.

Another CCP that is identified by Hôtel des Mille Collines is at food delivery and receipt where procedures for managing food deliveries are taken into account. At this point temperature control, record keeping transferring to storage of food are examined. At this point also, raw food especially Irish potatoes, green bananas, sweet potatoes, cassava, yams and others of the same nature are washed with clean water before being stored. The storage of food items is carefully managed by segregating food storage whereby perishable food is stored differently from dry food items. The storage of non perishable food items is done in shelves which are at least 48 centimeters above the ground to ensure that food is not contaminated. The fridges used for storage of different food items are different whereby fruits and vegetables have their own fridges which is different from fresh milk fridge, meat fridge, fish fridge and dry food fridge. The hotels also practices the first in-first out (FIFO) policy whereby the raw food which was received first is the first is be used. This practice prevents raw food from getting spoiled while being stored because spoiled food is likely to produce food poisoning which is a serious hazard faced by many hotels. This activity is done by setting the criteria that has to be met to control the hazard at that point and all restaurant works are strictly instructed to observe the criteria.

Another step done by Hôtel des Mille Collines to ensure food safety is establishing a maximum or minimum limit for temperature in fridges where perishable food is kept before being prepared for consumption. The control of the pH, salt level, chlorine level in all food items observed to control hazards in the hotel restaurant

Other CCPs that are identified at Hôtel des Mille Collines are food production, service/display of food, cleaning/maintenance, personal standards and hygiene of employees. The food handlers who include cooks and waiters/waitress are required to wash their hands before entering the kitchen and to put on appropriate and well washed and ironed uniforms. The cooks in particular must wear white clothes, put on a white cap to prevent hair from falling in food and keep their hairs and nails short. While preparing food, different food items are prepared on different tables, meaning that the table used to cut fruits and vegetable is different from the one used to cut meat or fish. In the kitchen also, the decomposable and non-decomposable waste are put in different dust bins. The food handlers also required to take regular medical examinations of some diseases which can easily be transmitted to hotel clients if the hotel staff carries that disease.

Basing on HACCP guidelines and principles Hôtel des Mille Collines kitchen has also been designed in a way that promotes food safety. For instance, the kitchen windows are big enough to allow smoke to easily get out of the kitchen, and a smoke extractor has been installed to prove a smoke passage route. Furthermore, staff changing room has been built just before the kitchen entrance to enhance the hygiene of food handlers and a hand washing basin for the kitchen staff has been placed at entrance of the kitchen entrance. The kitchen also two routes, one for food exit and the other for used plates/left overs entrance. The route used for taking out of the kitchen cooked food to the restaurant is different from the route used to bring back to the kitchen the left-over food with dirty used plates, cups and glasses. This arrangement has been made to basing on HACCP guidelines with the intention to minimize food contamination, thereby promoting food safety at the Hotel.

CONCLUSION

This study analyzed the significance of hazard analysis and critical control point (HACCP) system to promotion of food safety at Hôtel des Mille Collines which is one of the oldest hotels in Kigali city, the capital of Rwanda which is highly visited by clients due to its convenient location in the city center and long time of existence. The study established that Hôtel des Mille Collines is making several attempts to implement HACCP in its food preparation so as to promote food safety.

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ABOUT THE AUTHOR

Mangwa Kalisa Steven holds a Bachelor degree in Arts, majoring in Geography from Makerere University in Uganda. He also holds a Master of Science Degree in Ecotourism from the Global Open University-Nagaland in India. He is currently pursuing doctoral studies in Tourism and Hospitality Management at Azteca University which is based in Mexico. The author has been researching, supervising research projects and lecturing in different Universities in Rwanda. The key disciplines taught are Ecotourism and destination management, wildlife conservation, National Park Management, and Tourism Policy and Planning. Email: mansteven2005@yahoo.com