

# Food Safety and Quality: an Overview of Practical Implementation in Selected Hotels of Haryana Tourism

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*The safety of food is of utmost significance and has gained a worldwide attention. The globalization of food supply is major trend contributing to food safety problems. Food safety and quality and consumer protection against the food fraud relate to basic human rights as advocated by FAO. In recent years, total quality management (TQM), Hazard Analysis and Critical Control Point (HACCP) and International Organization for Standardization (ISO) certification have assumed significant role. Govt. of India is busy in formulating tougher norms for all food products, including potable water. Hotels and restaurants are already subjected to inspection under PFA Act & rules. So, food safety has always been a concern of food service operators. Haryana is considered as one of the developed state of union of India. At the same time it has got tourist destinations with good infrastructure which is popular both with international as well as domestic tourists. Haryana boasts of its ancient monuments/temples with rich cultural & archeological heritage, modern hi-tech city, motels, resorts and luxury hotels and good road transportation network. Haryana Tourism Corporation having hotels spread all across the state. It is considered among most respected Tourism body with hotel network in the country and pioneer in the field of motels in the same lines of United States. Despite of that it has failed to implement latest international practices in Food safety and quality up till now.*

**KEYWORDS:** *Food Safety, Haccp, Iso-22000, Hospitality, Hygiene.*

## INTRODUCTION

Food safety is a scientific discipline describing the handling, preparation, and storage of food to prevent food borne illness. Food safety is in one's hand. It can be ensured maintaining proper hygiene standards. So, both personal as well as work area hygiene is of utmost importance. Moreover, potential food safety hazards can be biological, chemical and physical. The safety of food is of utmost significance and has gained a worldwide attention. The globalization of food supply is major trend contributing to food safety problems. Tourism and increased cultural interest may lead to new eating habits. Eating away from home is a major trend in latest years. Many of the meals taken away from home require extensive food handling and /or are cold foods that are not cooked properly before consumption. Food safety and

quality and consumer protection against the food fraud relate to basic human rights as advocated by FAO. Catering and food service play an increasingly important part in our experience of food quality and safety. Food control can be defined as the mandatory regulatory activity of the enforcement of food laws and regulations by national or local authorities to provide consumer protection and ensure all food during production, handling, storage, processing and distribution are safe, wholesome and fit for human consumption & conform to safety and quality requirement and honestly labeled as prescribed by the law. The food control system is the official institutional set up, at national or sub national levels responsible for ensuring the safety and quality of the food supply. It includes: Food control management, Food laws, regulation and standards, inspection services, Good practices and Quality assurance, Laboratory services, Information, Education,

Communication, and Training. Adulteration of foods also poses a serious danger to food quality and safety. In recent years, total quality management (TQM), Hazard Analysis And Critical Control Point (HACCP) and International Organization for Standardization (ISO) certification have assumed significant role.

## **IMPORTANCE OF HYGIENE IN HOSPITALITY INDUSTRY**

Guests walking into a restaurant bring number of expectations with them. They expect good, safe food, clean surroundings and pleasant service. All these elements together make up a good dining experience. It is a challenge to a manager of commercial and non-commercial establishments to direct a number of activities at once, including employee training and management and purchasing, preparation and service of food. Food service managers generally expect to meet the diner's expectations. Managers assume that they are going to provide good, safe food in clean surroundings with friendly service. This assumption especially regarding the safe food and clean surroundings should be based on not only on a foundation of goodwill and good intentions but also on a sound understanding of sanitary policies and procedures. Food safety and quality have become a part of wide spectrum of issues, which goes beyond the avoidance of food borne biological pathogens, chemical toxicants and other hazards. Consumer's confidence in the safety and quality of the food supply is an important requirement and is often described as from farm or pond to plate approach. Hotels and restaurants dealing with international tour groups are often subject to inspection of their premises by group leader and tour operators. It is the basic requirement as selection criteria of hotels/restaurants for giving business. Govt. of India is busy in formulating tougher norms for all food products, including potable water. Hotels and restaurants are already subjected to inspection under PFA Act & rules. So, food safety has always been a concern of food service operators. However, the number of food borne illness attributed to the food service industry is still significant. The food service industry is still serving the public that is increasingly intolerant of food service risk. All food service operation have the potential to cause food borne illness through errors in purchasing, receiving, storing, preparing and serving food. Food service operator cannot assume that workers learned proper personal and food hygiene practices in their home and at the same time government cannot simply depend on health inspection to

make the operation safe. The National Restaurant Association has reaffirmed its position that the responsibility of providing safe and wholesome food rests with the service industry.

## **ORIGIN OF THE RESEARCH PROBLEM**

Hospitality industry today is a massive industry providing facilities of home away from home to million of travelers. These travelers can be business traveler, tourists, pilgrims or the others. All of them have different needs and expectations. However, the hospitality industry is so versatile that it is catering to the need of all of them. Today, the hotels provide much more than just accommodation and meals. Services are provided to the guest based on their needs so this industry started getting commonly referred as Hospitality industry. This industry is also known for satisfying guest need of food, forming sub-industry in itself; catering industry. There can be various types of food & beverage operations designed to meet the demand of consumer. Over the years, eating out became a matter of choice rather than necessity. Food service operations involve the process of procuring raw materials, production of and finally serving to the customer on demand. As the food production process varies so as the type of outlet and style of service.

Safe food is vital. It is well said that we are what we eat. Ensuring availability of safe and quality food for the population is of vital importance for any country. Unsafe food is equivalent to an enemy within, which weakens the economy as it leads to using up of scarce resources for fighting disease and poverty caused due to consumption of unsafe food. Food borne diseases and food poisoning are entirely avoidable problems if certain standards and parameters are followed. This will have to be followed all along the food supply chain -from farm to fork. It is the right of every consumer the world over to have access to safe and good quality food and the provision of the same is a crucial issue of public health. Global focus on the quality of food implies that food safety and quality are of paramount importance to sustain and increase India's food exports as well as its share of tourist influx in international tourism market. Globalization and removal of tariff and non-tariff barriers have brought in international competition to the domestic markets, making it essential for Indian industry to adopt strong practices of food safety and quality to be competitive. Improving food safety and quality has to be constant and continuous effort for

improvement rather than one-shot effort, and all stakeholders have to be involved in it.

In the present scenario Ministry of Tourism (Govt. of India) is not leaving any stone unturned to promote India as major tourism destination to world. Simultaneously, projects are on at war footing level to create infrastructure to cater the expected tourist inflow. A common wealth game 2010 at New Delhi is approaching closer is bound to put Indian hospitality industry on to world map. At the same time Ministry of Food Processing Industries is celebrating 2008-09 as 'Year Of Food Safety and Quality' to sustain India competitive in food industry map (where it is 2<sup>nd</sup> in world after China) Considering all the above points, a perfect stage has been set to study "FOOD SAFETY AND QUALITY: AN OVERVIEW OF PRACTICAL IMPLEMENTATION IN SELECTED HOTELS OF HARYANA TOURISM". India is vast country with tourism potentials having all elements & attractions wide spread so study is carried with special reference to hotels of Haryana Tourism.

Haryana is considered as one of the developed state of union of India. At the same time it has got tourist destinations with good infrastructure which is popular both with international as well as domestic tourists. Haryana boasts of its ancient monuments/temples with rich cultural & archeological heritage, modern hi-tech city, motels, resorts and luxury hotels and good road transportation network. The presence of all these elements makes it ideal to limit my study to Haryana Tourism.

## REVIEW OF RESEARCH AND DEVELOPMENT

### Sanitation

Sanitation is the creation and maintenance of healthful, or hygienic, conditions. It comes from the Latin word *sanitas* meaning health. In a food service situation, the word sanitation means wholesome food, handled and prepared in away that the food is not contaminated with disease-causing agents. In other words, sanitation is what helps food stay safe. But sanitary simply does not mean clean as which appears to be clean may not always be sanitary. Clean means free of visible soil. Sanitary means; free of harmful levels of disease causing micro-organisms and other harmful contaminants. Clean refers to aesthetics and concerns outward appearance- a face without a smudge, a glass that sparkles, a shelf wiped clear of dust.

The factors involved in food safety as well as the inherent risks fall into three categories:

**Food** – its safe condition initially, and its protection in preparation and service. Not all food is safe when it arrives in the operation. The food service manager must work with reputable suppliers and implement tight receiving procedures to help ensure safe food. Once the food arrives, it must be stored, prepared, and served using methods that maintain its safety.

**People**-those involved in handling food both as employees and as customers. The success of a food service manager in dealing with food borne –illness problem depends on how the human factor is handled. A manager must carefully train, monitor, and reinforce by example of the principles presented during training.

**Facilities**- the sanitary condition of physical plant, and the equipment used in a food service operation. Eliminating hard to clean work areas, faulty or overloaded refrigerators or other equipment, dirty surroundings, poor housekeeping and conditions attractive to pest infestation makeup the third focus of our analysis- the facilities and equipment.

## HAZARD CONTROL FOOD SAFETY PROGRAMS

Food safety programs need to incorporate anew system based on actual risk of acquiring a food borne disease. This system, called Hazard Analysis Critical Control Point (HACCP), is being adapted from food- processing industry. The National Restaurant Association (USA) has developed a HACCP- consistent system called Sanitary Assessment of the Food Environment (S.A.F.E), which allows food service operators to monitors their operation and reduce the opportunity to food –borne illness.

## FOOD QUALITY

Food safety and food quality are critical to bottom line. Food that has off flavors, is dry, or appears stale is not likely to impress customers. Preserving food quality is another objective of sanitation. Sanitary handling is a major factor in both food safety and quality. Food that is stored, prepared and served properly is more likely to retain its quality. The standards of a food's quality include its safety, appearance, chemical properties, texture, consistency, nutritional value and flavor. Any one of these can be destroyed by unsanitary procedures from purchase

to service. Proper food handling with is important to preserve food quality.

## **BENEFITS FROM HYGIENIC PRACTICES**

In addition prevention from bad publicity that can follow an outbreak of food borne illness catering unsafe food. Immediate returns can be gained through good food-protection practices. Food costs are lowered when waste is reduced and when portion control is improved. Quality control is improved when procedures and practices are standardized. Providing high quality food is an important strategy in an increasingly competitive industry. Increased productivity is achieved when employees are trained on continual basis and accountable for their actions. Thus, improved food protection results in improved operating efficiency, which ultimately results in improved profitability. Sanitary procedures will prevent out breaks of food borne illness, maintain goodwill, and keep the financial bottom line from bottoming out.

## **REGULATION**

State laws, or municipal health codes and ordinances with provision for fines or closure for violations, prohibits unsafe food handling practices for food services. These laws are aimed at protecting the public. The law provides yet another incentive to serve safe food. Law is one powerful motive for protecting customers and patrons.

## **CODEX ALIMENTARIUS**

The Codex Alimentarius is the basic international standard of Food Safety and Hygiene that has been adopted by India and is being followed by all sector of the food production industry. This also affects hotels and restaurants being at tertiary level in the food chain. The codex principles uses the HACCP approach to identify various points of potential hazard to food safety, establishes critical limits and control points and systems of taking corrective actions and monitoring the effectiveness of these corrective actions in ensuring food safety.

## **PRINCIPLES AND APPLICATION OF HACCP**

HACCP is an acronym for hazard analysis and critical control points. HACCP is a system, which identifies,

evaluates and controls hazards, which are significant for food safety. Hazard is a physical, chemical or biological agent, or condition of food, with the potential to cause an adverse health effect. HACCP is management tool that provides a more structured approach to the control of identified hazards than that achievable by traditional inspection and quality control procedures. It has the potential to identify areas of concern where failure has not yet been experienced and is, therefore particularly useful for new operations. By using a HACCP system, control is transferred from solely end product testing to design and manufacturing of foods. Much of the effectiveness of HACCP is achieved through the use of multi-disciplinary team of specialists. They should have skills from relevant areas, e.g. microbiology, chemistry, production, quality assurance, food technology and food engineering. Unfortunately, there is no such thing as zero risk for food. Consequently, risk analysis is needed to determine what the hazards are and to identify their immediate, interim and long-term effects on human health. The benefits from the use of HACCP are many and varied. Key benefits include:

- HACCP is a systematic approach covering all aspects of food safety from raw material, growth, harvesting and purchase to final product use.
- Use of HACCP will move a company from solely retrospective end product testing approach towards a preventative quality assurance approach.
- HACCP provides for cost –effective control of food-borne hazards.
- A correctly applied HACCP study should identify all currently conceivable hazards, including those, which can realistically be predicted to occur.
- Use of HACCP focuses technical resources into critical parts of the process.
- The use of preventative approaches such as HACCP leads to reduced product losses.
- HACCP is complimentary to other quality management systems
- International authorities such as the joint FAO/WHO Codex Alimentarius Commission promote HACCP as the system of choice for ensuring food safety.
- HACCP helps to comply with legal requirement.

## **SEVEN HACCP PRINCIPLES**

1. Conduct Hazard Analysis
2. Determine the Critical Control Points (CCPs) in the process.

3. Establish Critical Limits for preventative measures associated with each identified CCP.
4. Establish a system to monitor control of the CCP.
5. Establish a corrective action to be taken when monitoring indicates that a particular CCP is not under control.
6. Establish procedures for verification to confirm that the HACCP system is working effectively.
7. Establish documentation concerning all procedures and records appropriate to these principles and their application.

### **ISO 22000:2005**

The standard has been developed within ISO by experts from the food industry, along with representatives of specialized international organization and in close cooperation with Codex Alimentarius Commission, the body jointly established by United Nations Food and Agriculture Organization (FAO) and World Health Organization (WHO) to develop food standards. ISO 22000 is designed to allow all types of organizations within the food chain to implement a food safety management system. ISO 22000-2005, Food Safety management systems- requirement for any organization in the food chain was published on 1<sup>st</sup> September 2005. It is first in the family of food safety management system standards. This international standard specified the requirements for a food safety management system that combines the following generally recognized key elements to ensure food safety along the food chain, up to the point of final consumption.

### **SQF2000**

SQF certification provides an independent and external validation that a product, process or service complies with international, regulatory and other specified standard to and enables a food supplier to give assurance that food has been produced, prepared and handled according to highest possible standards.

### **EUREPGAP**

EurepGAP started in 1997 as an initiative of retailers belonging to the Euro- Retailers produce-working group (EUREP), it has subsequently evolved into an equal

partnership of agricultural producer and their retail customer.

### **BRC**

The benchmark for food safety management, the Food Standard has been extensively revised to reflect the revised EU legislation and continuously best practice requirements. It is now in its 4<sup>th</sup> issue. The standard was created to establish a standard for the supply of food products and to act as key piece of evidence for UK retailers and brand owners to demonstrate 'due diligence' in the face of potential prosecution by enforcement authorities.

### **BHC**

Hotels and Caterer's Hygiene code for Hotel & Catering Industry based on the HACCP system. Following European Union directive 93/43 EEC and its adoption into the legislation on Food Hygiene, a second version of the code appeared based on the HACCP principles, approved by Ministry of public health, welfare, Govt. of The Netherlands.

### **FOOD SAFETY AND STANDARD ACT**

During the past five years, India has been through many dilemmas in relation to the reform process of the country's food safety administration. India's potential to garner a higher share in the increasing world food trade and the advent of Sanitary and Phytosanitary (SPS) Agreement under the World Trade Organization (WTO) have led to increasing recognition and adoption of food safety measures. The capacity of India to penetrate world markets depends on its ability to meet increasingly stringent food safety standards imposed by developed countries.

In August 2006, the reform process acquired pace with the passing of food safety and Standards Act (FSSA). The Act proposes establishment of a new authority; the Food Safety and Standards Authority, reorganization of scientific support pertaining to the food chain through the establishment of an independent risk assessment body, a new Food Law, merging 8 separate Acts and a new clarification of the relevant ministries' responsibilities. FICCI has been relentlessly working with the member companies and the government on this Act. This Act with its three tier structure (An apex Food Safety and Standards Authority, a Central Advisory Committee under it and

various Scientific panels and Committees) is expected to lay more emphasis on science based and participatory decisions and adopting contemporary approach in both standard setting and implementation. Keeping in view the impact of FSSA on food processing industries in India, FICCI conducted this study to understand the food processing industry's perception of the implications of FSSA.

Prominent benefits of implementation of the Act as anticipated by industry are:

- Unification of eight laws (80%)
- Hope for stronger implementation that will curb corruption (74%)
- Anticipation of science based standards (68%). 95% of the respondents appreciate the benefits of the Act and look forward to its implementation at the earliest.

## FOOD HYGIENE & PRESEVATION

All food handlers should observe good food hygiene practices to prevent food contamination and to ensure food safety. The following practices should be adhered to:

\* Ensure all food sold are obtained from licensed sources.

\* Keep raw food and cooked food on separate shelves in the refrigerator, with cooked food above raw food. Also, ensure that the temperature within the refrigerator is kept at the correct levels (i.e. chiller is kept below 5(C and freezer below -10(C).

\* Protect cooked food on display using protective showcases. Where food warmers are used to keep food warm, they should be kept above 60(C and, if food are chilled, they should be kept at below 10(C to prevent proliferation of bacteria.

\* Do not keep personal belongings in food preparation areas. A separate locker area should be provided for storage of personal belongings.

\* Do not use cracked or chipped crockery as germs can harbour in the cracks.

\* Use separate implements and chopping boards for raw and cooked foods to prevent cross contamination.

\* When serving food/drinks, do not touch the inside of glasses or the top of plates/bowls.

## Refuse Management

\* Dispose of all food waste and other refuse in foot pedaled refuse bins lined with plastic bag. Clean up any refuse spillage immediately.

\* Avoid touching refuse bins with hands during food preparation or while serving food.

\* Remove the bags of refuse from the bins for disposal at the bin centre regularly. Ensure there is no refuse leakage and that the plastic bags are securely tied up.

\* Wash and disinfect all refuse/bulk bins at the end of each business day.

\* Keep all refuse bins in the stall covered when not in use.

\* Check areas near the food shops for evidence of rodent and other pest infestation.

## Cleanliness of Dining Areas, Tables and Seats

\* Clear all soiled crockery as soon as customers leave the tables. Better still; implement a scheme to encourage all customers to clear their own soiled crockery themselves.

\* Clean and disinfect the floor of the dining area, tables, chairs, etc at the end of the business day.

\* Use a different colored cloth for cleaning furniture such as tables/chairs to separate them from cloths for drying washed crockery.

## Cleanliness of Facilities/Equipments

\* Wash all soiled crockery/cutlery thoroughly with suitable detergent under running water. They should be properly dried before using for the next customer.

\* Clean cooking ranges and preparation tables after every preparation. Practice a 'clean-as-you-go' habit.

\* Clean cooker hood and flue systems weekly.

\* At the end of each business day, clean and disinfect floors, all counter tops, display showcases and other surfaces. For disinfect ion, prepare a simple disinfecting solution by diluting household bleach (adding 1 part of bleach to 49 parts of water or as prescribed by the manufacturers on the container).

## Note: Do Not Use Disinfecting Solutions On Utensils & Crockery.

\* Keep the interior and exterior of the refrigerator/chillers/freezers clean at all times.

\* Keep all food equipment (toasters, oven, electric rice cookers, coffee grinders/makers etc) clean and well maintained at all times.

\* Protect ready-to-use items such as forks, spoons, knives and chopsticks against contamination from

coughs/sneezes. Wherever possible, provide these items in the pre-packed form.

### ***Prevention of Pest Infestation***

\* Engage a registered pest control operator to carry out regular pest control works.

\* Check the stall area daily for signs of rodent and other pest (e.g. rodents, cockroach) infestation.

\* Keep all storage shelves/cabinets at least 30 cm above the floor level to facilitate cleansing and prevent harborage of pests.

\* Ensure all food is properly stored. Use storage containers with tight fitting covers to store dry food ingredients.

\* Maintain good housekeeping and cleanliness of the stall at all times. Avoid storing cartons, boxes or other paraphernalia that could provide hiding places for rodents, cockroaches & other pests.

***Personal Hygiene:*** All food handlers must maintain a high standard of personal hygiene to prevent food contamination and transmission of harmful pathogens. Food handlers should observe the following good practices at all times:

\* Wear clean work clothes, uniforms and aprons at all times. Aprons should not be worn outside the food establishment or when visiting the toilet. Hair restraints should also be worn when handling food.

\* Avoid touching the nose, mouth, hair or eyes when handling food.

\* Do not use bare hands to handle ready-to-eat food or cooked food. Gloves, tongs or other suitable implements should be used.

\* Avoid wearing jewellery or other costume accessories when preparing food.

\* Wash hands with soap and water frequently especially before preparing food, after every visit to the toilet and after sneezing/coughing. Spend at least 15 - 20 seconds working up a good lather. Soaping and rinsing of hands should include areas between fingers, nails and the back of the hand up to the wrists. Dry hands with clean disposable towel or with the hand dryer.

\* Cough, sneeze, or blow your nose into a disposable tissue or napkin. Dispose of used tissue/napkin in a litterbin or flush it down the toilet bowl. Wash hands immediately after.

\* Do not spit indiscriminately onto the grounds/drains. Always use a tissue or napkin and dispose of it

### **Internationally Published Work in Related/Allied Area**

Anita Eves & Panagiota Dervisi(2005) has studied 'Experiences of the implementation and operation hazard analysis critical control points in the food service sector' This study explored experiences of implementation and operation of hazard analysis critical control points (HACCP) in food service sector through in depth interviews with seven food service outlets in the south-east of England. Experiences highlighted a number of barriers to the successful implementation and operation of HACCP, and also perceived benefits. Barriers included difficulties of identifying hazards, inadequate knowledge, time related issues related to monitoring and recording, excessive documentation, convincing staff of importance of the system, and increased costs. Perceived benefits included protecting the business from otherwise unforeseen problems and providing evidence of 'due diligence'. There was however, an attitude of compliance, rather than true recognition of the value of the system.

R. F. Chichy (1982) has presented paper on 'HACCP as a quality assurance tool in a commissary food service system'. He has started that critical control point analysis of the production of ground nut in a commissary food service system revealed deficiencies in coming raw product handling practices, weight control, sanitation and sensory evaluation that are susceptible to correction levy the application of quality assurance/quality control/(QA/QC)principles.

A review of food safety and food hygiene training studies in the commercial sector (By M.B Egan, M.S Dean (2006) food consumer Behaviour and Health Research Centre, University of surrey, U.K, summarizes the methods & results of studies conducted worldwide on the effectiveness of food safety and food hygiene training in the commercial sector of the food Industry. In particular it focuses on those studies that have tried to evaluate the effectiveness of such training. Forty six studies of food hygiene training are included which used some outcome measure to asses the effectiveness of training. The short term nature and variety of measures used limited the majority of studies. The need for the development of evaluation criteria of effectiveness of food hygiene training is discussed.

Murat Bas, Azmi Safak Ersun & Gokhan kiranc (2004) of health sciences faculty, department of nutrition and dietetics, Barkent university, Turkey has evaluated knowledge attitudes and practices concerning food safety issues among food handlers in Turkey, conducting face to

face interview and administering questionnaire of the 764 food handlers who responded 9.6% were involved in touching or distributing unwrapped foods routinely and use protective gloves during their working activity. A majority of participants (47.8%) had not taken basic food safety training. The mean food safety knowledge scores were 43.4 +/- 16.3. The study demonstrated that food handlers in Turkish food businesses often have lack of knowledge regarding the basic food hygiene (critical temperatures of hot or cold ready to eat foods, acceptable refrigerator temperature ranges and cross-contamination etc.). There is an immediate need for education and increasing awareness among food handlers regarding safe food handling practices.

Seung-Hee Bark, Sunny Ham II, Sun Yang (2006) has studied 'a cross cultural comparison of fast food restaurant selection criteria between Korean and Filipino college students' and mentioned, despite the globalization of the hospitality and tourism industry present cross cultural research is limited to examining consumer behaviors or perception on the products and services the industry provides. The analysis of the data for the study, and the analysis revealed that both Koreans and Filipinos viewed Menu price as most important attributes. Next important attribute in Korea was followed by brand. This type of study is requisite for globalization of the food service industry in developing effective marketing strategies by understanding the different components of Asian food service industry relative to the U.S market.

Phillip Seaman and Anita Eves (2006) have presented research paper on 'The management of food safety-the role of food hygiene training in the U.K service sector'. This paper reviews the literature pertaining to the role of food hygiene training in a strategy to manage food safety. Traditional assumption that the provision of knowledge alone will lead to changes in attitudes and performance has been shown to be ill founded. A multitude of factors relating to the course itself, and events pre and post-training have shown to mitigate the effectiveness of training in bringing about desired changes in behaviour. Effective and relevant food hygiene training delivered with the support of the organization, adequate resources and the peer support of the colleagues will have a greater effect on intention and actual behaviour of the food handler, increasing the likelihood that safe working practices are carried out all times. Such approaches are necessary if hygiene training is to have impact on food safety management. Further investigation into the motivational factors and beliefs of food handler in relation to food hygiene training, its relevance in their working

environment and its effectiveness are needed to aid the development and delivery of more effective food hygiene training methods.

Jennifer A. Wade (1998) has published paper on 'Hygiene for Caterer- the perennial problem'. In this result of a small hygiene management survey of catering managers are described. The main difficulties managers encounter are poor building design and problems associated with staff training and competence. Monitoring and control methods focus on staff performance and objective monitoring of cleaning chemicals is rare. The overall conclusion is that qualitative and quantitative monitoring is needed to facilitate the service of clean, safe food.

Cengizhan Acikel, Recai Ogur, Hakan Yaren, Ercan Gocgeldi, Muharrem Ucar and Tayfun Kir (2007) of Department of Public Health, Ankara, Turkey have published paper on 'The Hygiene Training of Food Handlers at a teaching hospital. They have highlighted that food related infection is an important health problem in many countries.

### ***Research Work in India In Related/Allied Area***

In India Tourism and Hospitality Industry are growing at a phenomenal rate. According to World Tourism Organization (WTO) the growth of Indian tourism will be unstoppable by the year 2020. Tourism and Hospitality is mainly a manpower intensive industry which is expected to employ over 124 million people by 2014 in India. Hospitality Industry is existing in our culture since ages and being versatile in nature that it is catering to the needs of all kinds of clientele. Hospitality industry includes accommodation and catering with other allied services. The focus of my study will be on food and beverage operations in Hotel/motels/Resorts of Haryana Tourism.

Thus, food is considered to be the heart of hotel business and it has always remains under the scanner. Ensuring the best possible hygiene practice is thereby pertinent. With the advent of the new ISO 22000 standard, it would be wise for hotels to phase out the Hazard Analysis and Critical Control Point (HACCP) method for food safety. HACCP was the 'the most' potent method for ensuring food safety. But it is time to upgrade it to another level in food safety described as ISO 22000:2005 - the new international food safety management system standard. It combines the generally recognised elements for food safety. The key issues are related to interactive communication, system management, control of food safety hazards through pre-requisite programmes and

HACCP plans, and continual improvement and updating of the management system throughout the food supply chain.

As a standard body for food safety management system, BSI Management System inspects and certifies numerous organisations dealing in food/food products. But, many hotels in India are yet to be upgraded to the existing HACCP technology standards. There is a dire need to conduct review and upgrade the system, thus, numerous food sector businesses are realising this fact and are moving forward to upgrade the existing practices in food safety. With environmental changes taking place thick and fast, it becomes a necessity to review the food safety parameters all the time. So, it can be concluded that food safety norms and its review is paramount for hospitality business. The maintenance of definite level in standard is vital for any business. The parameter of safety, quality and reliability of food served in hotel should be matched to the best of standards. Many hotels, which include some big names in the business, are following technology and need to adopt the latest as food safety is one area where constant development is demanded. The best of standards needs to be established and that can only happen if the industry keeps the pace parallel to developments in food safety management systems.

**Benefits of adopting ISO 22000:2005:** The various benefits that certify food management system against the requirements of ISO 22000:2005 as per BSI India Pvt. Ltd. are as follows:

- It applies to all organizations in the global food supply chain.
- It is a truly global international standard.
- It provides potential for harmonization of national standards.
- It covers the majority of the requirements of the current retailer food safety standards.
- It complies with the Codex HACCP principles.
- It provides communication of HACCP concepts internationally.
- It is an auditable standard which provides a framework for third-party certification.
- It is a auditable standards with clear requirements.
- It is suitable for regulators.
- Its structure aligns with the management system clauses of ISO 9001:2000 and ISO 14001:2004.

India has just started understanding the importance of hygiene and food safety in food/hospitality sector. Hospitality industry is yet to make it part of their day to day business so researches are also in its primitive stage. So, very few studies are conducted. At present Govt. of

India is fully geared up its machinery to create awareness about the importance of hygiene and food safety. Government of India bodies like CFTRI and QCI is involved in carrying out sole research work. Few NGO's are also coming up to further take it to grass root level.

Amitava Sanyal (2008) in his article 'Ingredients essential for food hygiene' explores how the Indian food industry is taking on the HACCP challenge. He mentions that there was plethora of safety codes advising on every aspect of food production all over the world. And the need for having them has been felt more acutely too. But the few codes have had such a wide impact on modern food production as HACCP. More Indian companies are gunning for HACCP certification nowadays. Thus, in recent times, several medium and large food companies in India have gone ahead got themselves certified – among these are MTR Foods, Nirula's, Dabur Real, and Niligiri Dairy Farm. On the other hand hospitality majors like the Taj group have also taken the lead in earning the HACCP label. Among the states, Kerala has taken lead by opening a national centre for food quality hygiene Safety programme certification in Thiruvananthapuram. The centre aims to develop a team of experts in the design, implementation, audit and certification of food safety systems. Sharad Hasamnis of Bureau Veritas Quality International, which claims to have about 25 % of Indian HACCP Certification market, says, there are several Indian specific problems like issues of pesticides residue in food. As far as the GMP norms are concerned, people are picking up but there is a scope of improvement.

## HYPOTHESIS

Haryana tourism hotels/motels/resorts have been following all national/ international norms and practices in food safety to ensure quality for customer satisfaction.

## RESULT OF STUDY & CONCLUSION

Haryana is state closet to Delhi. Its prominent cities Gurgaon, Faridabad and Sonapat are covering Delhi from three sides constituting National Capital Region. Ancient lifeline of the country 'The Grand Trunk road' also passes through other major cities of the state. Haryana boasts of country's best road transportation network so tourism body called Haryana Tourism Corporation having hotels spread all across the state. It is considered among most respected Tourism body with hotel network in the country and pioneer in the field of motels in the same lines of United

States. Since lots of new trends and international practices has come in recent times particularly in the field of Hygiene, Food safety & quality in food sector. India being signatory of WTO is bound to follow global norms & agreements. Both state Haryana & its tourism being flag bearer are expected to replicate same at national level. To examine that personal visit was conducted to Haryana tourism; resorts at Rai (Sonapat) & Kurukshetra. The catering staffs present on duty were interviewed. The result of this preliminary survey itself is indicative that Haryana tourism is yet to implement the recent international practices and norms. Even the catering staff/in charge over there has not even heard about these norms & practices.

### REFERENCES

- Andrews Sudhir (2006). Food & Beverage Management, Tata McGraw-Hill Publishing Co. Ltd., New Delhi.
- Bark Seung-Hee, Ham II Sunny and Yang Sun (2006), cross cultural comparison of fast food restaurant selection criteria between Korean and Filipino college students, International Journal of Hospitality Management, volume 25, issue 4, pp. 683-698
- Caserani and Kintons (2007). The Theory of Catering, 11<sup>th</sup> edition, Book Power, U.K.
- Chichy R.F. (1982) 'HACCP as a quality assurance tool in a commissary food service system (1982), International Journal of Hospitality Management, volume 1, issue 2, pp. 103-106.
- Codex Recommended International Code of Practice, General Principles of Food Hygiene, CAC/ RCP 1-1969, Rev. 4- 2003, page 1-20.
- Codex Recommended International Code of Practice, HACCP System and Guidelines for its Application, CAC/ RCP 1-1969, Rev. 4- 2003-Annex, page 21-31.
- Eves Anita & Dervisi Panagiota (2005) 'Experiences of the implementation and operation hazard analysis critical control points in the food service sector, International Journal of Hospitality Management, volume 24, issue 1, pp. 3-9
- Mortimore Sara & Wallace Carol (2006). HACCP- A Practical Approach; Book by, 2<sup>nd</sup> ed, An Aspen Publication, Maryland, USA.
- Roday S. (2007). Food Hygiene and Sanitation, Tata McGraw-Hill Publishing Co. Ltd., New Delhi.
- Sprenger. Richard A (1987) 'Hygiene for management – a text for food hygiene courses' 2<sup>nd</sup> edition High field Publication, International Journal of Hospitality Management, volume 6, Issue 1, pp. 61.
- The Food Safety and Standards Act, 2006, No 34 of 2006, India
- Wade Jennifer A. (1998), Hygiene for Caterer- the perennial problem, International Journal of Hospitality Management, volume 17, Issue 1, pages 83-87