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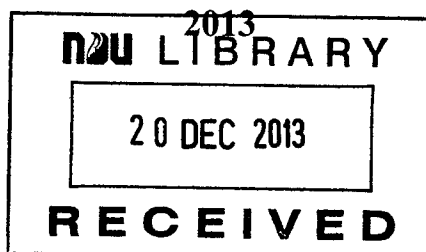
**Bordeaux Management School
Institute of International Business**

Food Safety Management Systems Applications
Ghia Holding and International Perspective

**A Thesis Submitted in Partial Fulfillment of the
Requirements for the Joint Degree of the Master of
Business Administration (M.B.A.) and the Master of
Science in International Business (M.I.B.)**

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Approval Certificate

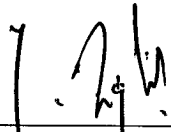
FOOD SAFETY AND MANAGEMENT SYSTEMS APPLICATIONS: GHIA HOLDING & AN INTERNATIONAL PERSPECTIVE

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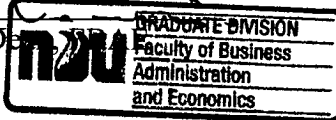


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ABSTRACT

The study intend to investigate if Lebanese Ghia holding customers care if the restaurants they are visiting have an established Food Safety Management System in place, also if they feel that the restaurant they are visiting needs to have paper proof or a certificate for the food safety management system implemented in it. Moreover, the results should be clarifying if Lebanese Ghia holding customers trust a local food safety management system to be a substitute for a food safety management system with international standards.

The subject is a matter of weight that can contribute in the success or failure of an organization in the hospitality sector. An entrepreneur aiming to establish a reliable restaurant must adopt a food and safety management system that can guarantee the actual existence of a safe work environment. Therefore, it was a need to find a certified quality system that combines international standards with affordable cost. International food safety management systems such as ISO 22000 supply restaurants with certificates considered highly significant to a great number of clients. For that point, implementing such standards contribute in improving a restaurant's service, therefore long term customer connection so, more profits, knowing that such certificates cost a significant amount of money just to get the license. One of the Owners of restaurants in Lebanon explains that such costs are pretty enormous in comparison with the small market. Hence, FSMS implementation can be the answer capable of providing International standards results, without the international certificate rate.

In order to achieve the necessary research, this study relies on primary and secondary sources of information. Primary data sources included 2 question surveys. Secondary data sources include academic articles as well as information from linked websites. The purpose of collecting both primary and secondary data was to determine whether a local food safety management system, could be used to authenticate to customers of Ghia Holding that restaurants are following proper food safety measures.

Keywords: Hospitality Sector, Food and safety management systems, Local adaptation, Matrix Analysis.

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ACKNOWLEDGMENTS

First, I would like to express my sincere gratitude to my advisor, for his guidance, support, help and continuous motivation.

Also I would like to thank my reader for all his assistance, in addition to my family, fiancée and friends for the constant inspiration during my masters' study and research.

Foremost I would like to thank my father for his patience, permanent motivation, understanding and encouragement. He pushed me to reach my limits and was there at all times. I promised to offer this thesis as my present for him in the occasion of his birthday, and here it is a few months later.

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Chapter One: Introduction

1.1 Overview

Nowadays food business is one of the fastest growing businesses in the world. The opportunities for success are greater than ever before in this industry. Challenges that food companies face are many, including financial considerations, competition and the contamination of food and how to provide safe healthy food to their customers. Food safety is all about proper storage, accurate cooking and precautions with all aspects of food handling, starting from production until serving the product. A preventive approach to food safety guarantees that the manufacturer examines every step of the process identifies the necessary procedures and makes sure that the process perimeters remain constant (A Guide to ISO 9001/2, 1996). The main idea behind food safety management programs is to provide safe and healthy food to the customers so that customers can submit their confidence in food products (Food Safety, 2009). Now that, the basic idea behind food safety management systems is clear, one can ask what food management system means? A food safety management system is a set of procedures or guidelines that must be followed by food production houses, to ensure that the product is safe and suitable for human consumption. In other words, it involves detailed examination of a process in order to identify and manage the hazards that could make the food unfit to eat (Satin, 2008). The main objectives of a food safety management program are as under:

- (a) Identify the associated fundamental principles of food hygiene throughout the food chain starting from the materials to final product and to achieve the goal of ensuring that food is safe and suitable for human consumption (Food Safety, 2009).
- (b) Provide necessary means for the implementation of food safety management system.

- (c) Provide expert technical advice that assists in identifying hazards, and to take necessary steps (Food Safety, 2009).

International food safety management systems such as ISO 22000 provide restaurants with certificates, considered highly significant to a great number of clients. For that reason, implementing such standards contribute in improving a restaurant service, therefore, long term customer relationship, and more earnings, knowing that such certificates cost a significant amount of money just to get the license. Mr. Maroun Daou, operations manager in Ghia Holding, explain that managements consider such costs to be quite high in comparison with the small Lebanese market. Ghia Holding has restaurants in Lebanon and Dubai, the two restaurants operating in Dubai, “Duo” and “Abdel Wahab”, are implementing the food safety system set by the Dubai Municipality, called Person in Charge system “PIC”. Lebanese branches of “Duo” and “Abdel Wahab” are also implementing the same system. However, the management decided to call it FSMS, standing for food safety management system. The name change is due to legal issues, since the implementation of PIC is not quite accurate in terms of auditing and certification.

1.2 Need for the Study

The study will attempt to verify the need for a food safety system in Lebanon, in light of the recent scandals covering food poisoning and contamination; this has become a critical need.

There are a number of reasons which are responsible for the implementation of a new food management system in Dubai. There have been numerous reports filed to the Dubai municipality that some food establishments were not following rules related to food safety, and they have been violating the food safety regulations. Earlier training programs used by Dubai municipality were more focused on just food handling and on people who handle food. The systems were outdated and needed improvement.

Taking Dubai's corrective actions as a role model, Ghia Holding and from a personal initiative, is adopting these safety procedures to eliminate foodborne illnesses.

Similarly in Lebanon, food related incidents are increasing in number and this matter is gaining the attention of the public opinion; media channels published lists naming many organizations, explaining that these businesses were adopting unsafe practices quiet often than others, therefore, putting the health and safety of people at risk. A main reason for violations of rules, regulations and poor food safety management by food business is due to poor management control (Khandke et al., 1998). Also, the lack of knowledge and certification regarding the handling and management of food is responsible for improper food practices among this industry as a whole.

Furthermore, not to involve people at managerial levels in enforcing food safety practices in their businesses (Frost, 2005). Management control is critical in ensuring food safety in the food business and managers should be properly trained and well educated about all the aspects related to storing, handling, processing, and preparation of food. And for people who are getting trained and studying the proper ways of food handling, it is difficult for them to put their training into practice mainly because of lack of facilities and because of lack of support and encouragement from the managers of the food business (Khandke et al., 1998).

From a regulation point of view, food inspectors still employ old systems and inspections are yielding inefficient outcomes. This often led to confusion and problems when it comes to food safety. Since there is no proper system followed, no one is responsible for the food safety in the food establishment. Inspectors are not able to provide recommendations and preventive actions in line with updated and modern food safety management systems for violations found during inspections. It is pretty much the same situation when customers have any complaint about any related issue to food safety (Food Safety, 2009). Customers are unable to find the right person to whom they can address their problems related to food safety and management. Another problem with the food safety management system related to the trade of food. Some of the companies involved in importing and exporting food products in Lebanon are not abiding by the rules and are violating various regulations related to food safety. Unsafe and poor handling of food products are

causing their direct rejection and discard at ports, causing significant losses to the food business (Food Safety, 2009).

Therefore, this paper will attempt to highlight to what extent it is essential to employ food safety management in a restaurant, in Lebanon.

1.3 Research Objectives:

- Identifying to what extent, the application of the food safety and management systems could influence the customers' choice among restaurants.
- Identifying the image and the impact that the locally created systems would have in comparison with the globally adopted and created food safety and management systems such as HACCP and ISO.
- Raising the awareness of Lebanese Ghia holding customers of such safety management systems. Is the restaurant management fully committed, bearing cost-benefit analysis, to the system they claim they are implementing? Do Lebanese Ghia holding customers care about such systems? If so, is the system a competitive advantage for the applying restaurant?
- Describing the Local FSMS (Food Safety Management System) applied by the studied case (Duo Restaurant from Ghia Holding), and its resemblance to the international standard systems. The research will show the extent of importance of having food safety management applied in a restaurant, in Lebanon.

1.4 International Perspective:

In contemporary markets, it has become crucial to be socially accountable and responsible (Frost, 2005). Food safety management systems are extremely valuable for organizations. It can be a significant source of competitive advantage for all companies adopting food safety systems. Furthermore, customer awareness to food safety management systems has increased, as they have become more demanding for

such systems to protect the society, and to provide the end user with accountable and responsible products and services (Khandke et al., 1998).

The food safety management systems are numerous around the globe. Each system could have its different standards. However, they have similar objectives and purposes. The main food safety management systems around the globe are:

1.4.1 HAZARAD ANALYSIS CRITICAL CONTROL POINTS SYSTEM, HACCP:

HACCP is the food safety management system that has been most recognized around the globe. HACCP identifies, evaluates and control hazards which are crucial for food safety. The NASA originally developed this system in the Unites States of America to ensure food safety for astronauts. Identified hazards in HACCP can be biological, chemical, and physical agents present in food. Also, such form of food that has potential to cause adverse health effects (Sikora & Nowicki, 2007). CCP or critical control point system is a step at which control can be applied, and is necessary to prevent or eliminate a food safety hazard or reduce it to an acceptable stage. The HACCP system can be applied in the food chain right from harvest to the point of consumption. The system of food safety is based on seven principles. These principles are:

- (a) Identifying Hazards:** The first principle of this system is to determine the potential hazards that can be present in the food products, using this system to determine the potential hazards at all stages of food production.
- (b) Determining Critical Control Point:** The second principle is to determine the critical control points the food production chain to control the contamination of food. Control points are the stages in food production where it is possible to control or eliminate hazards. Critical control point is that stage in food production where is necessary to control that hazard because there is no later stage at which that hazard can be removed or controlled (Kafel et al, 2011).

- (c) **Establishing Critical Limits:** Establishing critical limits means to determine measurable perimeters that must be met to ensure that critical control points are under control.
- (d) **Establishing a monitoring system:** Monitoring is the standard measurement or observation of critical points to ensure that it is not beyond the critical limit. A monitoring system has been setup to monitor and record control at critical control points. It helps to keep everything under control (Kafel et al, 2011).
- (e) **Establishing corrective action:** Whenever there is an indication by monitoring system that a critical control point is exceeding the controlled limits, corrective actions are to be taken to ensure that CCP remains within the accepted limits (Kafel et al, 2011).
- (f) **Establishing record keeping and documentation requirements:** The documentation required by any company depends on its size and complexity. It must be able to fulfill all the needs of the business and ensures that food safety management system is working properly (“NCSI”, 2009)

1.4.2 BRITISH RETAIL CONSORTIUM FOOD SAFETY AND QUALITY MANAGEMENT, BRC:

This food safety program is for those businesses seeking British Retail Consortium food standards 2011. The international community considers this system as a benchmark for best food practices in the food industry. It is one of the world’s leading safety programs for safety and quality certifications, used by over 17,000 certified suppliers in 90 countries through a network of over 80 accredited certification bodies. The BCR global standards of food safety can be applied to:

- (a) Manufacturing of processed food (Kafel et al, 2011).
- (b) Providing name brand food products for food services, companies and manufactures.

BRC global standards for food safety standards focus on:

- (I) Safety
- (II) Quality
- (III) Legal compliance
- (IV) Operations criteria
- (V) Risk assessment to develop production control systems.

BRC can be categorized into seven main sections:-

- (I) Senior management commitment and continual improvement
- (II) The food safety plan HACCP
- (III) Food safety and quality management system
- (IV) Site standards
- (V) Product control
- (VI) Process control
- (VII) Personnel

Each of these sections has been further categorized into different clauses that describe the standard requirements. Each clause begins with a statement of intent followed by a description of requirements. Every company must comply with the statement of intent in order to obtain certification under this system. (“SAI GLOBAL”, 2012)

1.4.3 ISO 22000:

ISO 22000 is a generic food safety management system standard. It provides a number of general safety requirements that apply to all organizations in the food chain. Every organization part of a food chain needs to establish food safety management system. Once the organization establishes the system, it uses it to ensure that food products do not cause any adverse effects on human health. Experts designed ISO22000 for certification purposes. Once the organization establishes its food safety management system, it complies with the ISO requirements. Food chain consists of an entire sequence of stages and operations involved in preparing and consuming food products, including every single step right from the production until consumption. The purpose of this standard is to assist companies within avoiding

food safety threats by providing guidelines in order to plan, execute, operate, maintain and update a food safety management system. Regulations aim to demonstrate compliance with statutory and regulatory food safety requirements, enhance customer satisfaction by evaluating, assessing, and conforming to customer requirements. ISO standards help communicate food safety issues to suppliers, customers and other stakeholders and to conform and demonstrate its stated food safety policy. And finally, seek certification and/or registration of its system by an external organization (ISO22000, 2012)

ISO 22000 can be used by various organizations even if they do not directly handle food. Various organizations where ISO 22000 can be used are:

- (a) Primary producers such as farms, diaries, and fisheries.
- (b) Processors such as fish processors, meat processors, and poultry processors.
- (c) Manufacturers like bread manufacturers, cereal manufactures, and canned food manufacturers (Kafel et al, 2011).
- (d) Food service providers such as grocery stores, cafeterias, hospitals, and airlines.

ISO 22000 facilitates organizations job to achieve their objectives. These objectives are:

- (I) To establish Food Safety Management System.
- (II) To ensure that products do not have any adverse effects on the human body.
- (III) To demonstrate compliance with, legal safety, requirements (Kafel et al, 2011).

The basic structure of ISO 22000 is the same as ISO 9001. It tells the organization how to combine HACCP plan with prerequisite programs and operational programs into a single integrated food safety management strategy (“PRAXIOM”, 2011).

1.4.4 SAFE QUALITY FOOD PROGRAM 1000, SQF:

SQF is one of the world's leading food safety and management system designed to meet the needs of retailers and suppliers worldwide. SQF 1000 provides an opportunity for producers to effectuate such management system that can be used on many products. This system is also based on HACCP system. Implementation of SQF 1000 addresses a buyer's food safety and quality requirements. It also provides a solution for producers who are supplying to local and international food markets. In addition, it enables them to meet product traceability, food safety and commercial quality criteria in a highly structured and cost effective manner ("FMI", 2010)

1.4.5 INTERNATIONAL FOOD STANDARD, IFS:

The ever rising demand of consumers, increasing liabilities of retailers and wholesalers, increasing legal requirements and globalization of food industry made it imperative to establish consistent quality assurance and food safety standards. Various European nations have collaborated in creating quality and food safety standards for retailer branded food products, with a purpose of assessing supplier's food safety and quality system following a consistent harmonizing approach. The basic objectives of International Food Standard include:

- (a) Establishing a common standard with a uniform evaluation system.
- (b) Ensuring transparency throughout the entire supply chain.
- (c) Reducing cost and time for both retailers and suppliers (Kafel et al, 2011).

IFS certification can offer a number of key benefits to companies striving for excellence in quality and customer satisfaction. Since many retailers participated in the development of the IFS, therefore, foremost retailers widely buy it. IFS is mainly divided into four main sections which are:

- (a) Audit protocol
- (b) Technical requirements
- (c) Requirement for accreditation body, certification bodies and auditors
- (d) Reporting

The IFS program is a recognized Global Food Safe Initiative and is also specified worldwide by many retail chains (“SAI Global Limited”, 2012)

1.4.6 PERSON IN CHARGE, PIC:

Many food establishments in Dubai violate rules and regulations because they are sometimes not aware of those rules and regulations and because of lack of management commitment. Providing knowledge about the legal requirements and providing training to achieve those goals and requirements it is acutely necessary to have a proper food safety management system. Even the food business, which will be adopting this new food management system, will benefit from the food quality and safety of the food provided to customers. Every food business needs to nominate one person as PIC and need to register that person with the food control department of Dubai municipality. Once the organization register officially, the nominated PIC will undergo training and have to clear exams in order to get valid certification as PIC. This system has already been proved helpful in providing better food safety management system in various provinces of USA and Australia.

Dubai municipality announced the launch of PIC program and set it be a mandatory program for all the food establishments all over the UAE. The main motive behind this program is to ensure food safety for customers, and plugging in any loop holes currently present in the food industry (Khandke et al., 1998). Since food business is the main contributor to Dubai economy, it is particularly crucial for the local government to ensure safety of the food consumed by tourists and local people in Dubai restaurants. PIC stands for Person-In-Charge program, under which professional associations train a person and grant him a certification in food safety. The person in charge can be the owner, a designated person or a manager who is always available at the food establishment. The person in charge will be the one always involved in the business and have direct control and supervision over employees engaged in the storage, preparation, display or service of food. The role of the person in charge is to manage actively food safety practices at the business and will be accountable to the employer and government for making sure to follow the necessary procedures and policies to ensure the safety of the food (TSIPIC, 2012).

Dubai accreditation department will certify the awarding bodies that will manage the training program for PIC's. Various bodies that are working with the Dubai municipality accreditation body are High field Awarding Body for Compliance (HABC), TSI and Chartered Institute of Environmental Health. These awarding bodies develop training programs along with the food control department, train and certify trainers who will also train individuals to work as PIC in Dubai food industry. These PIC's will be trained on the food regulations that are mandatory in Dubai, and will focus on training managers in following food inspections, and to take corrective measures and necessary action when needed. They will also be trained to answer and follow up any customer complaints. This specialized training for PIC will also include information on food import regulations, labeling, microbiological and chemical standards, etc. It will also cover basic food hygiene standards and practices. The most valuable part of this training is self-inspection, where the PIC will be taught to shape their own food business for which they are responsible. The training program is available in various languages. The municipality provides handbooks to PIC with all the necessary information to operate a safe food business. Once the PIC will receive the training they will be able to use the knowledge gathered from their training, to observe practices and behavior related to food safety at their business, provide feedback and training to their staff and provide incitation for continuous improvement in the food safety of their food business. They will also be able to offer guidance to their fellow employees at all levels of the organization to take the right decision, as well as following rules and regulations to ensure food safety. The certification given to PIC will be valid for 5 years.

Various requirements necessary for the food establishment regarding the PIC are as follows:

1. Every food business in Dubai municipality need to have at least one full time on site PIC certified in food safety.
2. The certificate of person in charge shall retain in the establishment and should be provided to the representative of food control department whenever required.

3. Once the employment of person in charge is terminated, the establishment shall have 30 days to employ a new person in charge certified in food safety. The proposed person in charge shall enroll for training program within 15 days.

Their requirements for the awarding bodies that provide training for PIC's:

1. Only the awarding bodies that the food control department of Dubai have approved and the accreditation body of Dubai have accredited, can offer certified person in charge qualifications.
2. The accreditation will be granted as per ISO standards by Dubai accreditation department. This system will involve a review of procedures used to develop the qualification. It will also focus on governance, experience in providing qualifications, expertise and quality of recommendations offered.
3. Awarding bodies must have consent from the food control department of Dubai on fee of the training programs.
4. Awarding bodies shall provide higher levels of customer's services to trainers and candidates.
5. Awarding bodies shall develop relevant and up-to-date training program and qualifications. The food control department shall approve the program before it can be offered to the industry.
6. Awarding bodies shall provide material and other certification for training in at least 3 different languages which shall include English and Arabic.
7. Awarding bodies shall meet the requirements of ISO standards in reviewing the effectiveness of the program.
8. Awarding bodies shall monitor the continuous professional development of trainers.
9. Awarding Bodies shall take appropriate action to ensure that executors are not compromising quality and integrity of the qualifications. If the trainers or training companies fail to comply with the requirements, awarding bodies shall take appropriate action.
10. Awarding Bodies shall supply the Food Control Department with easy access to records and documents relating to trainers, qualifications and audit sessions.

The department shall have access to test question papers, test scripts, records of marking and any other relevant documents related with the training program.

Chapter Two: Literature Review

2.1 State of Knowledge

The organization of food and agriculture, declares that the purpose of an industry standard is to establish principles or product specification, which all entities involved within a sector adhere to in order to improve quality, facilitate trade and ensure certain processes and procedures are followed. Issuers put in place standards related to food safety in order to improve the safety of the food people eat by following verifiable requirements of processes. Standards can be put in place by government departments, organizations within the private sector, or by certification bodies. Certification takes place when a third party provides written assurance that an organization's process and/or product conforms to a certain standard, and therefore demonstrates its compliance to the management, procedures and rules of the standard (FAO, 2006).

Sikora and Nowicki examine the assurance of food safety as a key requirement of consumers. Beginning in the United States of America and expanding world-wide, international standards organizations and governments began recommending that businesses and organizations involved in food preparation use hygiene guidelines based on the Hazard Analysis Critical Control Points system rules as presented in Codex Alimentarius. The way in which these rules are interpreted impacts the level of food safety assurance practiced by the business using them. In an effort to clarify the definition of the rules outlined by the system, standards needed to be developed (Sikora & Nowicki, 2007).

FAO states that in order for restaurants to apply for certification in food safety; they must first meet a number of prerequisite programs (PrPs). These include operating under the Codex Principles of Food Hygiene, Code of Practice, and food safety legislations of the area. The Codex Principles of Food Hygiene set by the food and

agriculture organization and world health organization ensure that food is safe for consumption and include the avoidance of areas where the environment may be unsafe, the control of contaminants, proper handling and storage, and the use of hygienic conditions (CAC/RCP, 2008). The Hazard Analysis and Critical Control Point (HACCP) is the internationally recognized formal system used to measure safety risks in a food process. ISO 22000 is the International standard based on HACCP requirements, which is applicable to all organizations involved in food process, as well as the most sought after certification. There are also a number of private standards and certification methods available for food safety management (FAO, 2006)

2.2 Previous Research

Dabhi stated that food safety is serious public health matter and food borne disease has a considerable effect on health worldwide. Although the international incidences of food borne disease are complicated to approximate, the World Health Organization (WHO) reports that, in the year 2005, 8 million people passed away from diarrheal diseases, several from infected food and water. Even in developed countries, the proportion of publics suffering from food borne illnesses yearly has been accounted to be up to 30%. Food infectivity generates an enormous social and economic load on societies and their health organisms. (Dabhi, J. 2012)

Kafel and Sikora explain that, a number of internal and external benefits are realized by businesses that carry out and earn certification of their food safety management system. These include detailed and accurate internal communication and documentation, higher levels of customer satisfaction and trust, and increased food safety and quality (Kafel & Sikora, 2011).

Bishop and Tritschler wrote about the current improvement of foodborne illnesses as more foodborne disease studies became at hand, the comprehension of foodborne disease will alter from a limited diarrheal disease center to one advanced of a wide spectrum of foodborne illnesses, combining chemical-related diseases and relevant diseases. These studies also intend to consign the problems resulted by

underreporting. Examination systems are a crucial basis of information to investigate the burden of foodborne disease measurements (Bishop & Tritschler, 2012)

According to Starbird, consumers have flawed information about the food safety practices exercised by providers. The common way that a consumer may attempt to gather information about the quality is by sampling examination. Sampling examination induces sampling error so some contaminated product passes the test and some safe product does not. This vagueness controls consumer and provider behavior. In his article, Starbird used a principal-agent model to study how sampling inspection procedures influence food safety. Therefore, it is mandatory to include diverse types of inspection types in order to prove the proper application of a quality system (Starbird, 2005).

Crespi and Marette sets an analytical framework where customers are incorrectly informed about the safety of goods, the purpose of the framework is to investigate the welfare impacts of a communal documentation system. Numerous certifications are priced under alternative formations of certification rate. With the existence of the current competition among several suppliers, managers focus on minimizing the cost, therefore diminishing the increase of prices. In the article, the authors clarify that an addition to the end price caused by the increase of the per-unit fee is efficient to signal product safety goods. However, binding certification associated with a fixed cost will have a negative effect on the pricing structure. Further, documentation by solitary, private agency consequences in an imprecise fee (Crespi & Marette, 2001)

Pouliot and Sumner explained that recent food scares such as the discoveries of contaminated crops tuned awareness toward food traceability. They elaborate on how hazards increase in food, create motivations for farmhouses and marketing company to supply safer food by raising liability expenses. The authors formed a stylized marketing chain. Unsafe food for customers can be sourced by several sides. Authors also focus to show that safe food declines with the number of providers and defective visibility from clients to marketers reduce accountability incentives to supply safer food (Pouliot & Sumner, 2008).

Knight, Worosz and Todd investigate in their article whether perceptions about food safety are connected to how often people eat at a restaurant. Specifically, it studies how the concern about food safety issues, food safety performance of restaurants, how frequently consumers think about food safety, the conviction of having had food poisoning and knowledge about food safety; affect the frequency of eating out. The study utilized data from a telephone survey conducted with 1,014 randomly selected U.S. adults; the outcome demonstrates that beliefs of food safety do influence how frequent respondents eat at restaurants. Concern about food safety related issues, thinking about the safety of food, and having food poisoning in the past were connected to constancy of eating out. When analyzing consumers who eat at restaurants rarely, occasionally, and often, most of the obvious contrasts were between those who dine at restaurants rarely and those who eat out occasionally or often (Knight, Worosz & Todd, 2009)

Tonsor spoke in his paper about the demand for new attributes in food products. Usually, economists frequently use choice experiments; Tonsor used a split-sample experimental form focused on demand for attributes, he found consumer inferences concerning food quality and safety to affect approximates of marginal willingness to pay, market cooperation, policy suitability and consumer well-being effects. Results advocate that comprehension of findings should be perceived as contingent on attributes included in original analyses. Drawing a split-sample empirical approach, to associate multiple CE compositions and advised to practitioners to acknowledge, better consumer assumption effects in future studies (Tonsor 2011)

Pillayand Muliyl (2005) describes ISO 22000 as a business management tool that can be used to link business processes to food safety. This tool can also be used to define and control process and analyze customer needs. ISO 22000 integrates food safety processes with quality management and can be used by any organization associated with the food supply chain, both directly and indirectly. The food chain is made up of the entire sequence of stages and operations which are involved in the creation and consumption of food, from its initial production to its final consumption, and includes the production, processing, distribution, storage, and handling of all food and food ingredients. The food chain is also made up of

organizations that do not directly handle food, but may produce food for animals that will be used as food. It also includes organizations that produce materials that will eventually come into contact with food or food ingredients (Pillay & Muliyl, 2005).

National standards institutes that represent 163 countries worldwide made the International Organization for Standardization (ISO), it is the largest publisher and developer of International Standards in the world (ISO, 2012) with over 19000 published standards (ISO2, 2012). Member institutes include government-mandated bodies as well as private sector industry partnerships. The ISO philosophy is based on consensus among its members in order to “meet both the requirements of business and the broader needs of society” (ISO, 2012). Countries are not required to adopt ISO standards, and the ISO does not enforce or regulate the implementation of its standards. Some countries do choose to put into practice ISO standards, especially those that concern environment, health or safety. Members review ISO standards every 5 years (ISO2, 2012).

According to Sikora and Nowicki, the International Organization for Standardization developed ISO 22000 Food Safety Management System standard in 2005, in order to equalize the level of and ensure the reliability of food safety. This standard refers to Codex Alimentarius rules based on the World Health Organization recommendations and includes a number of other formal requirements for protection against food hazards. The ISO 22000 standard calls for the requirement of that the organization establishes, documents, implements updates, and maintains an effective food safety management system based on this standard. The organization must define the scope of its food safety management system. The scope must specify the product, product categories, processes, and production sites that its food safety system addresses. Moreover, the organization will identify food safety hazards that could occur concerning the products within its defined scope, and that these potential hazards are identified, evaluated and controlled in such a way that the consumer will be protected against them. Proper communications throughout the food chain to report any safety concerns related to its products, and preparation for crisis situations. ISO 22000 Standard is addressing all the organizations that are involved with the food chain,

regardless of production complexity size or level. It involves organizations that are both directly as well as indirectly involved with any of the stages of the food chain (Sikora & Nowicki, 2007).

Faergemand and Jeperson wrote that ISO 22000 is a generic food safety management system that specifies what requirements must be met in, order to demonstrate its ability to control food safety hazards, ensuring that food is safe at the time of human consumption. Application of the ISO 22000 standard can apply to any organization that is directly or indirectly participating in the food chain including food producers, food manufacturers, transport and storage operators, retail outlets and restaurants and their subcontractors, equipment and packaging manufacturers, cleaning agents and producers of additives and other ingredients. Key elements of ISO 22000 that apply to all of these organizations include interactive communication, system management, and hazard control (Faergemand & Jespersen, 2004).

As per Nemeroff, ISO began work on the ISO 22000 standard in 2001 with the goal of developing a standard that was auditable and which further defines the role that HACCP has within Food Management Safety Systems. Upon its launch in 2005, ISO 22000 became known as the international standard that defines the requirements needed by organizations in order to meet or exceed food safety management. This standard includes all needs required by market and allows for a simplified process while maintaining high quality food safety management. This standard can be used by all organizations within the food chain, around the world. By integrating a number of methodologies, applications and principles, the ISO 22000 standard is an efficient while being easy to understand, recognize and apply (Nemeroff, 2006).

ISO 22000 was also employed to help businesses with the implementation of the Hazard Analysis and Critical Control Points (HACCP) system (ISO, 2012).

Sikora and Nowicki determined the expectation of the HACCP system is that those involved with the food chain will understand and follow the stages of its implementation. Although the Codex Alimentarius outlines what needs to be done, it does not suggest how. Codex documentation also outlines what requirements must

be met in order to meet Good Hygienic Practice (GHP) which is then regulated by country, which must be put in place prior to the implementation of HACCP. The Codex Alimentarius places the codex practices first, followed by the implementation of the HACCP system (Sikora & Nowicki, 2007).

Nemeroff defined the initial purpose of HACCP, used by NASA in 1959 and was first implemented by the Pillsbury Corporation in 1973 (Nemeroff, 2006). In 1993, the Codex Alimentarius Commission (CAC) published the system guidelines for the implementation of HACCP and in 1997, the internationally accepted International Code of Practice Principles of Food Hygiene incorporated these guidelines (ITC, 2011). Nemeroff revealed that the demand by consumers for safe food has encouraged companies to create management and safety systems based on HACCP, which has been considered the food safety system most effective in addressing and controlling food hazards. Today, many countries around the world legally require that HACCP principles be implemented for organizations involved in the processing of food. It is pertinent to note that verification of compliance to HACCP is not accomplished by inspection, but is instead established by certification (Nemeroff, 2006).

The concept and purpose behind the HACCP system is ensuring food safety, by acting as a preventative quality assurance process; constructed for the function of increasing the level of control, and providing monitoring of potential hazards during significant stages of food process management. HACCP can be described as a risk management tool for the food industry which examines monitors, identifies, and controls hazards as well as verifies these controls. Khandke and Mayes (1998) recognize the implementation of HACCP a framework to identify, quantify and manage food safety hazards by isolating risks and controlling them (Khandke & T.Mayes, 1998). The HACCP system is a scientific and systematic method of assuring food safety, which is a necessity rather than an option (Nguyen, Wilcox, & Aung, 2004) and can be applied to any organization within the food chain. Marnellos and Tsiotras added that this system addresses food safety by analyzing and controlling biological and chemical hazards from the time that the raw material production, during handling and manufacturing, until distribution and consumption by consumers. The HACCP is an

effective and cost system of controlling food hazards because it provides safety implementation measures during each step of the food chain (Marnellos & Tsiotras, 1999).

Arvanitoyannis and Varzakas compare ISO22000 and HACCP; they declare that although ISO22000 and HACCP are both geared towards food safety, there are a number of differences between them. The purpose of the HACCP system is to prevent hazards related to food safety. ISO 22000 supports and builds on HACCP by taking a system approach which enables continuous performing updates, in order not only preventing new food hazards from arising in food products, but also identifying new technologies that can be used to control these hazards. Unlike HACCP, ISO 22000 defines the responsibilities of management within organizations during each stage of the food chain rather than just at the point of distribution and consumption (Arvanitoyannis & Varzakas, 2009). Frost (2005) describes ISO 22000 as a system that was developed with the assistance of experts in the food sector and incorporates HACCP principally in a single document. He also notes that all key standards can be used at any stage in the global food procession (Frost, 2005).

Nemeroff affirm that HACCP continues to be an internationally accepted food safety system, used to ensure that the food presented to customers is safe for human consumption. This is accomplished as a result of its systematic approach to identifying and assessing the level and severity controlling the biological, physical and chemical hazards concerned with certain food production processes (Nemeroff, 2006). These three types of hazards are those that may be present in food and could potentially cause injury or illness in humans (ITC, 2011). HACCP can be defined as “a system, which identifies, evaluates and controls hazards which are significant for food safety” (FAO, 2006) and acts as a proactive concept that ensures that food is safe from the time farmers harvest it, until the time of consumption. As long as each step within the process is properly followed, the food consumed will be hazard-free and safe (ITC, 2011).

Nemeroff supplement that the advantages of HACCP include the overall increased understanding and control of food hazards, as well as heightened confidence of

consumers when consuming food that it is safe. A disadvantage of HACCP is that it is a set of principles as opposed to being a standard, and therefore can be easily misinterpreted or interpreted differently among parties, where a member may implement any of the principals differently than another (Nemeroff, 2006). HACCP is not a system that is to be implemented by itself; it needs to be partnered with effective hygiene and other prerequisites as well as a strong commitment to food safety management in order to be effective. As well, a separate HACCP process should be put in place for each product (ITC, 2011).

Arvanitoyannis and Varzakas, (2009) note that the key differences between ISO 22000 and HACCP are that the scope of ISO 22000 is larger than that of HACCP in that it includes all food organizations from primary production to consumption, and includes those indirectly involved organizations in the food chain. Also, hazards that are in need of control are managed in part by PrPs when implementing the ISO 22000 standard. Again, the ISO 22000 standards include a provision of crisis management if an external risk is identified. ISO 22000 necessitated that external communications are a requirement between food organizations and the authorities who are involved in food safety over and above the internal communication requirements directed by HACCP (Arvanitoyannis & Varzakas, 2009)

As per Frost, a Food Safety Management System is made up of a number of elements with the purpose of preventing a negative impact on human health. The elements that make up a FSMS include policies and procedures that are prepared to reduce foodborne injuries and organize quality standards to be followed. An FSMS includes methods and controls that take into consideration the roles and responsibilities within the organization and require the development of documents, resources and records to ensure success (Frost, 2005). In order to establish a successful FSMS, it must be documented, implemented, maintained, evaluated and updated (Faergemand & Jespersen, 2004). Pillay and Muliylil claim that in order to create an FSMS that meets these requirements, all elements of HACCP and a comprehensive management system must be established (Pillay & Muliylil, 2005). In order to ensure the

reliability and success of an FSMS, effective prerequisite plans must be put in places which help simplify as well as strengthen the organization's commitment to HACCP.

As per Faergemand and Jespersen, in order to be successful, the FSMS must combine the principles of HACCP with the application of these prerequisite plans and use a hazard analysis in order to discover the use of which strategy to control and manage food hazards (Faergemand & Jespersen, 2004). A FSMS combines quality management, communications, responsibility, crisis management, improvement, appropriate health practices and hazard control (Surak, 2006)

Sikora and Nowicki define the requirements of a Food Safety Management System,

- The need for the organization to demonstrate its ability to control food safety hazards so that it is safe for consumption
- That the organization follow the law requirements
- That food safety policies are followed by the organization
- That the organization effectively communicates its food safety issues to stakeholders, including suppliers, customers and other parties within the food chain
- That the company seeks registration and/or certification of its FSMS

An organization meeting these requirements can provide evidence of its ability to identify and control hazards, and to manage conditions related to food safety (Sikora & Nowicki, 2007).

2.6 Conclusions and Research Questions

In order to ensure that institutions identifies, manages and controls food safety hazards, a food safety management system must be put in place as part of restaurant management quality assurance. The international standard that food safety systems should be rated by is the internationally recognized Hazard Analysis Critical Control Points (HACCP) system. The ISO 22000 is an international standard that is a fully qualified FSMS based on the HACCP system. Although it is not required to become certified in ISO 22000, it is a sought after criterion for many stakeholders. In

addition to ISO 22000, there are many private FSMSs that are based on HACCP used across the world.

It is not uncommon for different countries, regions, markets, industries and organizations to implement their own food safety system which includes their own food safety standards and requirements. It is necessary for these independent management systems to address established standards conditions, such as traceability of communications throughout the food chain, and should also match the requirements of ISO 22000. Becoming certified in a FSMS that is compatible with ISO 22000 and is integrated with the organizations existing quality and safety systems will ensure that safety and quality processes are being followed and that customer confidence can be expected (Nemeroff, 2006). By implementing a FSMS based on HACCP, businesses reduce their risk of selling or serving unsafe food products which will increase customer confidence level in the establishment. Implementing a HACCP based quality system will also assist the business with meeting food safety regulations. FSMS certification is received by applying to a certification body after meeting certain prerequisites such as effective implementation of the FSMS for a minimum of 3 months; verification and documentation concerning the effectiveness of the system internally to the business and performing a management review (ITC, 2011).

The following questions will be analyzed and answered by this paper

RQ1: Do Lebanese Ghia holding customers care if the restaurants they are visiting have an established Food Safety Management System in place?

RQ2: Do Lebanese Ghia holding customers feel that the restaurant they are visiting needs to have paper proof or a certificate for the Food Safety Management System implemented in it?

RQ3: Would Lebanese Ghia holding customers trust a local food safety management system to be a substitute for a food safety management system with international standards, such as ISO 22000.

Chapter Three: Ghia Holding

3.1 Introduction

Established in 1997, Ghia Holding is a local company based in Beirut, Lebanon that owns and manages 6 popular restaurants in the area, each with its own unique concept (Ghia, 2012). The company also provides full franchising consulting services to newcomers to the restaurant ownership, businesses who are seeking to open a new restaurant, and offers franchising opportunities for two of their successful restaurant brands to interested entrepreneurs in becoming a franchise partner (Ghia2, 2012).

Ghia Holding' restaurants, franchising consulting, and franchised locations are among the most successful in Beirut because of the “principles [the owners’] stick to such as dedication, strong moral standing, exquisite cuisine and first class service” (Ghia2, 2012). Ghia Holding is dedicated to the implementation, training, and monitoring of standard restaurant operations “from hygiene & sanitation to look & cook, guest relations, service standards, selling techniques and controlling cost & waste” (Ghia2, 2012). The company frequently visits its franchise partners in order “to ensure the implementation of the day-to-day operations and quality standards (Ghia2, 2012)”

3.2 Company History

Ghia Holding began as a small company in 1997 by a group of four friends when they introduced Le Monot (Ghia, 2012), one of the first French bistro restaurants to be found in Beirut. (LeMonot, 2012). The restaurant featured high quality Lebanese and French cuisine for competitive prices in an atmosphere that replicated a French café (LeMonot, 2012). It was not long after this that the friends decided to open an Italian restaurant, named Ciao, in the same area, which quickly became known for its wood pizza oven, pasta dishes and low prices (Ciao, 2012). The Abdel Wahab was

an oriental restaurant established by the company in 1999 and was their first restaurant created within the heart of the city outside of the Monot area. The Abdel Wahab filled a niche within the oriental market in the city (AbdelWahab, 2012).

With the success of the Abdel Wahab in the central district, the Ghia Holding company partners decided to move Le Monot and Ciao from the Monot area in 2002. They combined these two successful businesses into one and named it the Duo. The owners subdivided the new restaurant onto two levels to maintain its original concepts of French and Italian. The Duo became the restaurant with the highest clientele rate in the central district, in Beirut (Duo, 2012). Also in 2002, the Ghia Holding partners opened the authentic Lebanese cuisine restaurant, Al Bakawat, with a focus on attracting locals and tourists alike with their café environment and on-site entertainment, including Oud music and fortune tellers.

The following year, in 2003, the company expanded into the Beirut nightlife when they opened the Shah Restaurant and Lounge, which featured oriental food and a live orchestra. Later that same year, the owners were approached by Arab entrepreneurs in order to assist them with opening their own restaurants in their home country. As a result, Ghia Holding successfully assisted with the launching of 3 Abdel Wahab franchises in Saudi Arabia and Kuwait and the Al Saraya restaurant in Libya (Ghia3, 2012). The Al Saraya restaurant catered to children with its kids menu and served a variety of Italian and Oriental dishes (AlSaraya, 2012). In 2006, the company opened their first Cuban restaurant, El Paladar, which was based on the hospitality found within Cuban homes and focused towards attracting tourists (ElPaladar, 2012).

Future growth planned for Ghia Holding is to continue to expand internationally through franchising opportunities. This plan includes offering extensive consulting, and operating services to each franchise including training and support to ensure that standardized safety and food handling procedures are followed in all locations.

3.3 Franchising

Ghia Holding is a full member of the Lebanese Franchise Association which describes franchising as a partnership between an individual who purchases and runs

a franchise who “must follow certain rules and guidelines already established by the franchisor” in return for the right to establish a business using the franchisor's trade name (LFA, 2012). Ghia Holding offers franchising opportunities for two of its brands: Duo (International Cuisine) and Abdel Wahab (Lebanese Cuisine)

Ghia Holding has two specialized groups of employees, Operating Consultants and Training Teams. They work closely with the franchisee to provide franchise owners assistance with making crucial decisions prior to opening their restaurant, such as selecting the right location, evaluating the market, creating menus, hiring and training staff and providing knowledge of customer service expectations. The company provides the franchisee with the “mechanics and strategies they need to be successful in running their day-to-day operations” (Franchises, 2012). Ghia Holding assists the franchisee with developing its organizational structure, business plan, and financial projections. The company also provides a supervisory program; operations manual, training program and support program in order to ensure that the franchise is running in accordance with their operational and safety specifications.

In addition to information pertaining to guest management and customer relations, the training program provided by Ghia Holding to its franchisees and every member of their staff focuses on the importance of hygiene and sanitation in the restaurant, the proper methods of food preparation and handling, cooking material information, and proper disposal and waste methods (Franchises, 2012).

3.4 Conclusion

In order for Ghia Holding to manage a successful restaurant group, they must maintain an effective and comprehensive Food safety management system. The purpose of this study is to determine whether FSMS, which is significantly less expensive than an international system, would be as effective in assuring the company's restaurant guests of its commitment to food safety management. This company's success attracted a group of Saudi Arabian entrepreneurs in 2003 (Ghia3, 2012), which was the beginning of a new growth opportunity for Ghia Holding in the form of franchising their popular and prosperous brands. The future growth plans for Ghia Holding focus on franchise partnerships for two of its popular restaurant

brands, for which Ghia Holding provides extensive consulting, support and training services to its franchisees. As part of the training services provided to franchisees, Ghia Holding ensures that all franchisee employees practice food safety management. If an inhouse system such as FSMS is found to be an acceptable program locally, it could be proposed as well as a cost-saving measure for the company's franchises.

Chapter Four: Research Design and Methodology

4.1 Introduction

This chapter discusses the methods used to answer the following research questions:

- 1) Do Lebanese Ghia holding customers care if the restaurants they are visiting have an established Food safety management system in place?
- 2) Do Lebanese Ghia holding customers feel that the restaurant they are visiting needs to have paper proof or a certificate for the Food safety management system implemented in it?
- 3) Would Lebanese Ghia holding customers trust a local Food safety management system to be a substitute for a Food safety management system with international standard, such as ISO 22000?

In order to conduct the necessary research, this study relies on primary and secondary sources of data. Primary data sources included a 7 questions survey for Ghia Holding (Duo) employees and a 10 questions survey for Ghia Holding restaurant customers. Secondary data sources include academic articles as well as information from relevant websites. The purpose of collecting both primary and secondary data; was to assess whether a local Food safety management system could be used to assure effectively customers of Ghia Holding restaurants that appropriate food safety measures are being followed.

This chapter explains the process of how research was conducted in order to fulfill its aim and objectives. The literature collected in chapter 2 helped to set the deductive theory used in this study.

4.2 Research Questions

4.2.1 Research Question 1: *Do Lebanese Ghia holding customers care if the restaurants they are visiting have an established Food safety management system in place?*

The purpose of this question is, to establish whether an established Food safety management system is a consideration of customers when deciding where they will eat when visiting restaurants in Lebanon.

4.2.2 Research Question 2: *Do Lebanese Ghia holding customers feel that the restaurant they are visiting needs to have paper proof or a certificate for the Food safety management system implemented in it?*

This question is asked in order to; determine whether customers who visit restaurants in Lebanon feel that proof of an established Food safety management system is a paramount consideration when deciding what location to eat at.

4.2.3 Research Question 3: *Would Lebanese Ghia holding customers trust a local Food safety management system to be a substitute for a Food safety management system with international standard, such as ISO 22000?*

The purpose of this question is, to discover whether customers visiting a restaurant in Lebanon would be satisfied if the Food safety management system put in place by the establishment were a local program rather than a Food safety management system that is internationally recognized.

The answers to these questions are detailed in Chapter 5.

4.3 Research Hypotheses

- 1) An established Food safety management system is a consideration of customers when deciding where they will eat when visiting restaurants in Lebanon.

- 2) Customers who visit restaurants in Lebanon; feel that proof of an established Food safety management system is an overriding consideration, when deciding what location to eat at.
- 3) Customers visiting a restaurant in Lebanon; would be satisfied if the food safety management system in place by the establishment, was a local program rather than a food safety management system that is internationally recognized.

4.4 Populations and Sample Selection

The population for the research consisted of a sample of customers of Ghia Holding restaurants as well as employees in Ghia Holding, Duo Company. The 200 customers surveyed, were chosen randomly in order to assess the general view of Ghia Holding customers, and the 15 employees are the middle and upper level managers within the Duo structure in order to discover the opinion of internal Ghia Holding employees.

4.5 Instrumentation

The instruments of the research consist of two questionnaires comprised of multiple-choice and Likert-Scales questions, one questionnaire for employees and the other for customers. The questions posed on each of the surveys requested information that allowed for an analysis of perception of these groups, concerning knowledge and importance of food safety management systems.

4.6 Selected Variables

4.6.1 Variables

The variables used in the analysis and their corresponding values are listed below:

- Food safety and management systems application
- Cost benefit
- Competitive advantage
- Market share
- Customers' choice

- Local systems
- International systems

4.7 Data Analysis:

In order to analyze the data, a conceptual framework was built. IBM SPSS Statistics software was used to analyze survey results from both groups. Descriptive and inferential analysis will be used to explain the research results.

4.7.1 Deductive approach

This research study used a deductive approach, meaning “existing theories and ideas were identified and were tested using data” (Saunders, Lewis, & Thornhill, 2003).

One of the requirements of this research was to conduct a deductive study; an existing theory was used as opposed to building a new theory, or an inductive approach, towards researching. Adopting this approach, helped to compare local and international systems (Saunders, Lewis, & Thornhill, 2003).

4.7.2 Qualitative data

Van Maanen (1979) identifies qualitative methods as, “an array of interpretative techniques, which seek to describe, decode, translate and otherwise to come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world”. It was appropriate to collect qualitative data rather than quantitative data in order to meet the objectives of the study. The qualitative data collected is closed-ended and open-ended related to the chronological and service field, ideal for this research, which approaches a managerial issue as they usually are the description of a process rather than a structure. The purpose of qualitative studies according to Carson et al (2001) is to acquire an understanding of the situation; an in-depth understanding that is based on the concentration in the observable phenomenon to be studied, assembling data which provide a thorough description of the interaction between people and events, providing profundity and facts.

Qualitative research is considered with occurrences that happen in organizations as researchers and people experience them. Though it tends to be individually descriptive or comparative, but it can be generalized by associating it with data and theory, so findings should be applicable in all comparable situations. With generalization, the end findings and results of the paper can be used for future studies that can develop the produced outcome.

4.7.3 Secondary data

In order to meet the objectives of the study, and answer the questions posed by this research, secondary data was collected. “Secondary data can also be combined with the primary data collected through questionnaires (Saunders, Lewis, & Thornhill, 2003). Academic Internet databases like Proquest and Emerald assisted with locating articles relevant to the study. As these articles are peer reviewed, they can be considered reliable and valid.

4.7.4 Primary data and survey tool

Questionnaires can be used either for descriptive or explanatory purposes (Saunders, Lewis, & Thornhill, 2003). The questionnaires used in this study were designed for explanatory purposes and therefore helped to obtain a large amount of qualitative data efficiently.

4.7.5 Reliability and Validity

Reliability refers to the degree to which a process consistently produces the same results and can be assessed by posing the following three questions:

1. Will the measures yield the same results on other occasions?
2. Will other observers reach similar observations?
3. Is there transparency in how sense was made from the raw data?’ (Easterby-Smith, Thorpe, & Lowe, 2002)

Validity is the degree to which findings measure or predict what they are intended to measure or predict. Since the questionnaires were designed for a similar research

previously performed, this increases their validity. 'A pilot test was conducted in order to test the questionnaires face validity that is whether the questionnaire appears to make sense (Saunders, Lewis, & Thornhill, 2003).

All the pilot questionnaires were checked to make sure that there was no difficulty in understanding or answering the questions. This provided the author with an idea of the reliability and suitability of the questions.

Chapter Five: Analysis and Discussions

5.1 Introduction

Food safety management system consists of a set of common food and safety requirements for all businesses and companies in the food industry. This system insures that by following its standards and procedures, the served food does not cause unfavorable human health effects. Ghia Holding held a survey; the findings of the questionnaire can help understand the importance of having a food safety management system with respect to the survey-taking individuals. In order to perform the needed research, this study relies on primary and secondary sources of data. Primary data in the form of a survey consisting of 7 questions for Ghia Holding (Duo) employees, and 10 questions for Ghia Holding restaurant customers conducted on 200 of Duo` customers

This chapter`s purpose is to analyze the respondents answers and relate their choices with the propositions presented in chapter Four.

5.2 Ghia Holding (Duo) Survey Results

Primary data sources included a 7 questions survey for Ghia Holding (Duo) employees conducted on the entire 15 middle and upper level employees in Duo. The purpose of collecting both primary and secondary data, was to assess whether FSMS could be used to assure customers of Ghia Holding restaurants, that appropriate food safety measures are being followed. The following section is attempted to analyze the answers of Duo` employees; the answers relate directly to whether this system is properly adapted, meaning that if an employee answers should reflect its full knowledge of the system and its aspects.

5.2.1 Question One, Duo Staff Survey Result

It is mandatory that the staff applying the procedure of a food safety management system is at least aware of their existence; it is impossible to believe that the processes are being properly implemented by a staff member that ignores the reality of such systems. “Are you aware of food safety management systems?” This is a basic question with the purpose of figuring if the staff, to begin with, has this fundamental knowledge.

Are you aware of food safety management systems?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	93.3	93.3	93.3
	No	1	6.7	6.7	100.0
	Total	15	100.0	100.0	

Table 1: Awareness for food safety management systems
(Source: Duo staff survey result)

When asked whether they are or are not aware of food safety management systems from the survey-taking individuals, 14 out of 15 said yes and only 1 person was not aware of any. This induces that a majorly significant part of the population, approximately 93 %, is well aware of the existence of food safety management system.

5.2.2 Question Two, Duo Staff Survey Result

Training the staff is the stepping stone for applying FSMS; the mere first sessions of the training consist of informing the trainees on the nature and the general background of this system; in DUO’s case, the trainees acquire full knowledge of FSMS that is based on PIC system adopted by Dubai Municipality. (Based; refer to the slight change targeting the name for royalty issues). Thus, a staff member must know what system he is daily putting into practice. “What kind of food safety management systems you apply?”

What kind of food safety management systems you apply?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid BRC food safety and quality management	1	6.7	6.7	6.7
FSMS	14	93.3	93.3	100.0
Total	15	100.0	100.0	

Table 2: Food safety management systems application
(Source: Duo staff survey result)

When this question was asked out of the 15 people, 14 of them answered FSMS and 1 answered BRC food safety and quality management. Therefore, again approximately 93% of the people use one brand of food management system and 7% use another. This shows that this 7% of the sample is not implementing FSMS. We can expect that, either they are not aware of it, or somehow, they do not like to use it. The limitation here lies on the 7% who answered “NO” on the first question, since if they are not aware of food safety management systems at all, how can they be acquainted with any of the six systems mentioned in this question?

5.2.3 Question Three, Duo Staff Survey Result

Usually, a staff member at the position of a middle or upper level manager at DUO must have at least 5-6 years of experience in the industry and a degree/certificate in a related field; therefore a manager has or is supposed to have knowledge about some food safety management systems, other than the one he is applying at the moment. Asking the staff to compare the level of qualifications of the system they are applying with other food safety management systems; is to find out if the people working with FSMS, and are considered being knowledgeable in that matter of expertise, believe that FSMS can be a substitute to internationally known systems. “How does the system you apply compare to the internationally recognized food safety management systems?”

How does the system you apply compare to the internationally recognized food safety and quality management systems?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Better qualifications and results	7	46.7	46.7	46.7
Same qualifications and results	6	40.0	40.0	86.7
Inferior qualifications and results	1	6.7	6.7	93.3
Others	1	6.7	6.7	100.0
Total	15	100.0	100.0	

Table 3: Comparison between applied system and international systems
(Source: Duo staff survey result)

The survey conducted on 15 people shows that 7 people believe that their food quality and safety management system is better than any international one. 6 people think it has the same quality as international systems; only 1 think it is of inferior quality and 1 thinks something else. 87% of the people surveyed consider their food management systems to be better or at par with international food safety management systems, and 7% thinking it is of poorer quality. Therefore, looking at the results it can be concluded that a big part of the population is content with the system.

5.2.4 Question Four, Duo Staff Survey Result

While putting into action the knowledge obtained in the training, staff members should be convinced with the need of the practices they are executing. In order for them to fulfill each task, they must be aware of the positive outcome and advantages caused by their proceedings. “As a firm that adopts a food safety management system, what are the advantages?”

As a firm that adopts a food safety management system, what are the advantages?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Better quality of service	4	26.7	26.7	26.7
Better quality of products	2	13.3	13.3	40.0
Better management	1	6.7	6.7	46.7
All of the above	8	53.3	53.3	100.0
Total	15	100.0	100.0	

Table 4: Advantages of food safety management system application
(Source: Duo staff survey result)

Looking at the results; it is apparent that 53% of people believe that adoption of a food and safety management system improves the overall scheme of the food industry, which includes proper management and quality of products and services. On the other hand, 40% of the respondents either believe that it improves service or products while only 7% think it only leads to better management. Therefore, looking at the outcome of the survey, one can see that the majority considers that the food safety management system can develop the whole structure and helps in every aspect.

5.2.5 Question Five, Duo Staff Survey Result

Ghia Holding's choice of following FSMS is based upon several reasons, the reasons are known by the top management. However, employees that are operating according to FSMS are asked why they are exclusively implementing it, while they can follow a branded internationally recognized system. The purpose is to figure the evaluation of employees toward FSMS. "Why do you follow your current food safety and management system rather than an internationally recognized one?"

Why do you follow your current food safety and management system rather than an internationally recognized one?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cheaper	8	53.3	53.3	53.3
	Less Standards to follow	4	26.7	26.7	80.0
	Better cost-benefit analysis	3	20.0	20.0	100.0
	Total	15	100.0	100.0	

Table 5: Reasons for following food safety management systems
(Source: Duo staff survey result)

It is obvious that people like to follow their domestic food and safety management system because of its qualities; 53% answered that they followed it because of its economical aspect, i.e.. Cheaper price than any of the international recognized systems, 27% related use of FSMS to its simplicity, since it has fewer standards to follow through thus its easier for them to implement. 20% think that they are following it due to its better cost-benefit analysis, and by cost-benefit, it is meant the amount of inputs whether the amount of work or money invested in relevance to the output gained. Therefore, it is believed that if they have a choice to have a simpler and cheaper international food safety management system, people might like to consider it.

5.2.6 Question Six, Duo Staff Survey Result

Engaging in Food and safety management systems is a tremendous commitment to the organization, while other factors exist; the budget used for implementation plays a crucial role; thus DUO or any other restaurant must be certain to regain the money invested. Several outcomes are targeted from implementing these systems such as long term customer relations, business growth and... but here, the question is aiming at figuring if the staff thinks that implementing FSMS will cause bigger market share. "Do you think that with the food safety management system you apply, you could earn bigger market share?"

Do you think that with the food safety management system you apply, you could earn bigger market share?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	13	86.7	86.7	86.7
	No	2	13.3	13.3	100.0
	Total	15	100.0	100.0	

Table 6: Advantages of following FSMS
(Source: Duo staff survey result)

Outcomes of the survey confirm that people believe that following the food safety management system is a significant marketing advantage. 87% of the respondents think that it will help earn bigger market share whereas only 13 % think it will not. This shows that using the system can help a company grow its business, earn respect in providing quality and safe products/services, and give a superior competitive edge as compared to competitors' lacking a food safety management system. Consequently, FSMS helps in getting a larger share in the market.

5.2.7 Question Seven, Duo Staff Survey Result

Every system proved to have disadvantages along with its advantages; the goal is to have the fewest number possible of cons, or ones that do not have a significant effect on the outcome. The answers provided to the respondents to choose from are the main cons found in several international systems. "What are the cons of applying a food safety and management system?"

What are the cons of applying a food safety and management system?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Higher cost structure	2	13.3	13.3	13.3
	Work-stress for employees	9	60.0	60.0	73.3
	Stricter policies and procedures to follow	3	20.0	20.0	93.3
	Restrictions regarding food and related products	1	6.7	6.7	100.0
	Total	15	100.0	100.0	

Table 7: Cons of applying food safety management systems
(Source: Duo staff survey result)

The biggest negative point of this system implementation is work stress on the employees, which is 60% according to the survey; Hence, FSMS is putting pressure on the employees, the pressure of following standards and the fear of auditors can affect their performance negatively. The second biggest barrier is the stricter policies and procedures to follow which represents 20% of the survey answers, as stricter policies limit the employee's creativity and empowerment, therefore his reaction to a sudden incident may result a poor feedback. Only 13% think its higher cost structure is a disadvantage, while a mere 7% think restrictions regarding food and related products to be of some concern.

5.2.8 Questions Relationship Analysis, Duo Staff Survey Result

Examining relationships is the focus of the analytical procedure, since it opens the door for the examiner to shift from straight forward description of the people in the form of respondents and surroundings to rationalization of why things took place as they did with that sample in that scenery. The procedure of investigating relationships can be better captured in a matrix that demonstrates how dissimilar concepts are connected, and conceivably what causes are linked to the effects.

5.2.8.1 Examining relationships, Duo Staff Survey Result

The numbers in the table below show the relationship between the awareness of the employees toward food safety management systems and their knowledge of what system they are already applying. By crossing the two questions, the purpose was to test if the managers knew at least the name of the system they are supposed to be adapting and entirely committed. This required a preparatory question investigating their level of knowledge in food safety systems in general.

		What kind of food safety management systems you apply?	
		FSMS	BRC
Are you aware of food safety management systems?	YES	14	0
	NO	0	1

Table 8: First staff question relation
(Source: Duo staff survey result)

All respondents who answered positively on the first question knew the right brand of food safety system the restaurant was following; however the one employee who was not aware of food safety management systems did not know the name of the system they are supposed to follow in their daily tasks. This relation between the two is attached, and indirect, unless it is the case of a negative answer; since an employee's knowledge about these systems in general, does not necessarily yield a correct answer for the second question. An employee who is utterly ignoring the existence of the systems, is not supposed to know what kind is adopted, however he might know all the procedures, process and steps to be followed while accomplishing his job without seeing the bigger picture.

5.2.8.2 Examining relationships, Duo Staff Survey Result

The relation here is between the opinion of the employees on why they are following their system and not a globally recognized one; and what are the cons of applying food safety and management system. A globally recognized system might be considered safer to follow, but its cost and standards are high which amplify the

difficulty of its application, these factors among others are exactly what can be considered the cons of applying food and safety management systems.

		What are the cons of applying a food safety and management system?				
		Higher cost structure	Work-stress for employees	Stricter policies and procedures to follow	Restrictions regarding food and related products	Others
Why do you follow your current food safety and management system rather than an internationally recognized one?	Cheaper	1	2	1	0	0
	Less standards to follow	1	0	3	0	0
	Better cost-benefit analysis	0	6	0	1	0

Table 9: Second staff question relation
(Source: Duo staff survey result)

The yielded numbers emphasize the two most powerful sides of the issue. 6 out of 15 respondents have matching answers regarding the main con being the work stress but at the same time they do understand their food safety system's most influential merit, which is its cost beneficence. Managers are bearing the weight of the daily stress they are facing whether personally or when it is affecting the employees; nevertheless they understand the added value of their system's implementation, which is its cost efficiency.

Three respondents matched their answers in a logical sequence in relation to the standards, while they made it clear that they believe the general cons are strict policies - thinking they are more severe than necessary- they described their system as less strict in its guiding principles, projecting an application based on a personal conviction.

Two managers think the system is being implemented based on its cheapness, and its resulting stress. They only see a negative side in applying their system.

As a result, this matrix shows the load being tolerated by the staff regarding their commitment toward FSMS from one side, from the other their persuasion in the positive outcome of the system, in terms of invested cost opposed to yielding benefit.

5.3 Customer Survey Result

This section of the chapter analyses the answers on 10 questions conducted on 200 Ghia Holding restaurant customers. Respondents were randomly chosen out of different outlets. The answers of the sample project an idea if Lebanese Ghia holding customers care if the restaurants they are visiting have an established Food safety management system in place. Questioning if customers feel that the restaurant they are visiting needs to have paper proof, or a certificate for the food safety management system that the workers are implementing. Also, if they trust a local food safety management system to be a substitute for a FSMS with international standards.

5.3.1 Question One, Customers Survey Result

The profile and background of the sample may differ from one another, thus their knowledge about food safety systems, in order for the respondent to answer “YES” he must have at least heard of one of the systems existing. Few months ago, Lebanon faced a crisis on the level of food items and restaurants; the media reported news about massive amounts of contaminated food and claims targeted some restaurants. Although this issue increased the popularity of food safety management systems in Lebanon; however the question aimed on finding out not just if the people knew the problem, but about their knowledge in the systems in particular: “Are you aware of food safety management systems?”

Are you aware of food safety management systems?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	107	53.5	53.5	53.5
	No	93	46.5	46.5	100.0
	Total	200	100.0	100.0	

Table 10: Awareness for food safety management systems
(Source: Customers survey result)

The answers resulted that 107 out of 200 said they were aware of food safety management systems whereas 93 said they were not. This implies that 54% almost half of the customers knew about it and 46 % were not aware. People are well-informed about the idea of food safety management systems.

5.3.2 Question Two, Customers Survey Result

This question is purposed to figure the degree of awareness of food safety management systems and their application within the population; the respondents will base their answers on different beliefs, some heard of the application others are sure. "Do you think food safety management systems are applied in Lebanon?"

Do you think food safety management systems are applied in Lebanon?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	120	60.0	60.0	60.0
	No	76	38.0	38.0	98.0
	11.00	4	2.0	2.0	100.0
	Total	200	100.0	100.0	

Table 11: Food safety management systems application in Lebanon
(Source: Customers survey result)

When asked this question, outcome reflects that 60% customers think that food safety management system is applied in Lebanon, which makes up a little more than half of the survey-taking individuals. 38% of them said it was not applied. This shows that a significant number of people think that their restaurants and food chain suppliers do not follow any form of standards or rules for food safety management. The result showing the 60% who believe in the application, is higher than the 54%

who are aware of the systems, this raises the issue that if how someone who is not knowledgeable of a system, answers positively towards its application?

5.3.3 Question Three, Customers Survey Result

For costumers, the answer of this question is highly relevant; it is linked to the preference of the Lebanese restaurant consumer behavior and its relation to food safety systems, and if these systems create a bonus where they are adapted, either for the respondent himself, otherwise if he thinks or knows individuals that are influenced by this matter. “Do such systems add value and create a competitive advantage for the adopting restaurants/organizations?”

Do such systems add value and create a competitive advantage for the adopting restaurants/organizations?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	131	65.5	65.5	65.5
No	69	34.5	34.5	100.0
Total	200	100.0	100.0	

Table 12: Value added for adopting organizations
(Source: Customers survey result)

Answers reflected that 66% restaurant goers believed if restaurants or organizations adopt a food safety management system then this will add value to their competitiveness; while another third of the respondents feel like it will not add any nature of competitive value. The reason behind it could be low awareness of quality systems. Even the results of section 5.3.1 verify this. Since almost half of people have not even heard of any category of quality standard, then how can they think it can be immensely significant to consider?

5.3.4 Question Four, Customers Survey Result

The Lebanese economy is based primarily on the service sector, which accounts for almost 60% of GDP; major sectors are commerce, tourism and monetary services. (Economy, 2010) Restaurants play a leading role in tourism, and actions that can boost this role are considered of high significance, questioning if food safety

management systems can create a move forward will figure the matter out. Respondents can choose from the following answers: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. “Food safety management systems are important for the success of Lebanese restaurants.”

Food safety management systems are important for the success of Lebanese restaurants.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SA	79	39.5	39.5	39.5
	A	58	29.0	29.0	68.5
	N	39	19.5	19.5	88.0
	D	7	3.5	3.5	91.5
	SD	17	8.5	8.5	100.0
	Total	200	100.0	100.0	

Table 13: Food safety management systems importance.
(Source: Customers survey result)

As a result of extensive research, it is seen that about 69% of respondents agree or strongly agreed that food safety management system is beneficial for the success of Lebanese restaurant. A remarkably small amount of people were utterly neutral and think it does not affect in any case. We can further notice from results that about 12% of customers disagree or strongly disagreed with their counterparts. Therefore, one sure thing is that a large portion of survey takers (approx.69%), who are customers, probably admire and think that having such system will highly benefit the industry. Since tourists, like to rely on some type of affiliations or standards that show that the place is up to the mark and follows certain standards of food safety. More than 31% seem to reflect low or negative sensitivity to the issue.

5.3.5 Question Five, Customers Survey Result

This question is direct and straight forward; it is placed on purpose following the previous one, the idea here is to explore if the consumer himself, given the choice, will pick food safety over other preferences, and if this matter is indispensable to him as a Lebanese citizen as much as he thinks it is essential to a foreigner. “Do you prefer restaurants applying food safety management systems over those that do not?”

Do you prefer restaurants applying food safety management systems over those that do not?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	145	72.5	72.5	72.5
	no	55	27.5	27.5	100.0
Total		200	100.0	100.0	

Table 14: Customers choice of restaurants
(Source: Customers survey result)

When asked this question, 145 out of 200 said yes and 55 said no. About 73% of the people, preferred going to restaurants where food safety management systems were applied; and the remaining 27% said that their choice were not affected by this variable. It can be the case that people who said no during the survey were unaware of such systems; we already know that half the population based upon the previous survey results, still does not have any knowledge about the subject.

5.3.6 Question Six, Customers Survey Result

As a customer, many factors play a role while deciding the choice of the restaurant to visit; these factors are a matter of personal preferences. Although one of the prime factors is the food safety management system, their implementation will lead to the improvement of other motives, therefore induce the matter of choice towards the organizations implementing these systems. “What do you think is the best advantage of applying food safety management systems such as HACCP, BRC, ISO2200, SQF& IFS?”

What do you think is the best advantage of applying food safety management systems such as HACCP, BRC, ISO2200, SQF& IFS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Better food quality	26	13.0	13.0	13.0
	Better service	27	13.5	13.5	26.5
	Meeting industry standards	26	13.0	13.0	39.5
	All of the above	121	60.5	60.5	100.0
Total		200	100.0	100.0	

Table 15: Food safety systems advantages
(Source: Customers survey result)

Most of the people agreed that following any brand of credible food safety management system would help organization/restaurants in many ways like improved food and service quality, meeting industry standards, etc. There were few people who thought that only one of the different possible advantages would be accomplished. 60% of the total said all the above advantages are achievable.

5.3.7 Question Seven, Customers Survey Result

Internationally recognized food safety management systems provide certificates to the organizations that meet all the requirements when audited. In some cases, the certification itself, apart from the expenses of implementation, costs a certain amount of money. These charges can cause a burden on small organizations and ones with several branches; accordingly the purpose of this question is to measure the level of importance of these certificates to the consumers. “As customers, do you require to see documentation hang in restaurants and lounges that prove following a food safety management system?”

As customers, do you require to see documentation hang in restaurants and lounges that prove following a food safety management system?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	143	71.5	71.5	71.5
	No	57	28.5	28.5	100.0
	Total	200	100.0	100.0	

Table 16: Official documentation
(Source: Customers survey result)

Survey results tell us that most of the customers would like to see the proof of food safety management system in restaurants and lounges. A solid document proof physically present; seemed mandatory and satisfactory enough resulting 72% of the respondent’s approval and only 28% rejection to such an option.

5.3.8 Question Eight, Customers Survey Result

Always things on global or international level are considered of higher value as compared to local or domestic ones. One reason is that if something is famous or

being used internationally then, this reflects its superiority and excellence. On the restaurants level, internationally recognized systems are sometimes considered to be exhausting, either for their elevated cost of certification or their precise demanding standards. Hence, is the importance of having a locally approved system, tailored to meet the exact needs of the market, and have a reasonably affordable price tag; the issue lies on the approval and acceptance of the customers towards these local systems. “Which food safety management systems would you most likely trust?”

Which food safety management systems would you most likely trust?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid locally created and applied	57	28.5	28.5	28.5
Internationally recognized systems	119	59.5	59.5	88.0
Others	24	12.0	12.0	100.0
Total	200	100.0	100.0	

Table 17: Trust for local and international systems
(Source: Customers survey result)

The survey results projected the commonly known beliefs about the tendency for the international standards; there are 60% customers who believe that internationally recognized systems are most likely trusted while 28% said locally created systems are more trustworthy and 12% said something else. This shows that, despite the high popularity and believability of internationally recognized systems, customers would still approve of local standards of food safety. Perhaps this is a manner of encouragement from the consumer toward Lebanese restaurants, especially if we link it to their answers on question four, where 69% of the respondents agreed that having food safety management systems is a decisive factor for Lebanese restaurants.

5.3.9 Question Nine, Customers Survey Result

Bearing the costs of implementing the standards and procedures of a quality system, and in case of a priced certification, will increase the fixed and variable cost of the outlet. The management must be confident to at least regain the expenses spent prior to getting involved in such commitment; consequently the purpose of this question is to make sure that the consumer is ready to pay the extra buck in return of the food

safety management systems application. “Would you pay a higher price for products and services provided by restaurants and other tourism organizations applying food safety management systems?”

Would you pay a higher price for products and services provided by restaurants and other tourism organizations applying food safety management systems?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	156	78.0	78.0	78.0
no	44	22.0	22.0	100.0
Total	200	100.0	100.0	

Table 18: Price sensitivity
(Source: Customers survey result)

The results show a slight inconsistency though favorability towards yes is much higher as compared to no. 78% of people think that they are ready to pay a higher price for the sake of better products and services; while 22% are not willing to do so. This indicates that most people are well concerned about the nature of food and service they get. They would not mind having some price hike, in order to get better assurance of food and service quality.

5.3.10 Question Ten, Customers Survey Result

Globally recognized food safety management systems are few; some are more famous than others, here we are trying to figure out the popularity and preference of the systems among Lebanese Ghia holding customers. Respondents chose from HACCP, BRC food safety and quality management, ISO 22000, SQF 1000 and IFS. **HACCP** stands for Hazard Analysis Critical Control Point; this system identifies, evaluates and control hazards which are significant for food safety. **BRC food safety and quality management** is for businesses who are seeking British Retail Consortium food standards 2011. It is a frame work which is used by various companies in the food industry as a supplier assessment program. **ISO 22000** is a generic food safety management system standard. It provides a set of general safety requirements that apply to all organizations in the food chain. **SQF 1000** which stands for, Safe Quality Food program is designed to meet the needs of retailers and suppliers worldwide. **IFS**, International Food Standards, is a uniform quality

assurance and food safety standards. It was developed to meet the increasing liabilities of retailers and wholesalers, increasing legal requirements and globalization of food industry. “If your answer was “No” to the first question please skip to the following question: Which of the following internationally applied food safety management systems that are you aware of, think is the best?”

Which of the following internationally applied food safety management systems that are you aware of, think is the best?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	HAACP	43	40.2	40.2	40.2
	BRC food safety and quality management	22	20.6	20.6	60.7
	ISO 22000	21	19.6	19.6	80.4
	SQF 1000	4	3.7	3.7	84.1
	IFS	17	15.9	15.9	100.0
	Total	107	100.0	100.0	

Table 19: Customer’s choice for best system
(Source: Customers survey result)

The biggest percentage of people that was aware of HAACP think it is the best, or is the only system they are aware of, while half of that percentage was aware of either BRC food safety and quality management, or ISO 22000. IFS was known to 16%, and only few knew of SQF 1000. This indicates that there is an immense irregularity in the results, and there is not one internationally applied food safety management system, that everyone has heard of and prefers over the rest, demonstrating by that the brand sensitivity of the systems and showing the slight progression of HACCP among other systems. This also displays that people have proficient knowledge of the mix of various quality standards.

5.3.11 Questions Relationship Analysis, Customers Survey Result

5.3.11.1 Examining relationships, Customers Survey Result

The below matrix projects the relation between the opinion of customers if such systems add value and create a competitive advantage for the adopting restaurant, and if food safety management systems are crucial for the success of Lebanese restaurants. Whether having a safety system gives an extra edge for the executing

restaurant or not, is a matter of individual preference. Linking the two questions is to analyze the matter's personal significance, along with the respondents' tendency toward a certain restaurant having a quality system over another restaurant not having any kind of food safety programs, and to determine if the customers do envision this issue as valuable to other citizens and foreigners.

		Food safety management systems are important for the success of Lebanese restaurants.				
		SA	A	N	D	SD
Do such systems add value and create a competitive advantage for the adopting restaurants/organizations?	Yes	69	41	19	1	1
	No	10	17	20	6	16

Table 20: First Customers question relation
(Source: Customers survey result)

Food safety systems add a value and create a competitive advantage for the adopting restaurants according to 131 of the respondents; these consumers include this fact whenever deciding between two or more restaurants; 110 out of them agreed that food safety management systems are essential for the success of the industry; they conceive that other customers also cherish this advantage. Hence a food safety system is one of the factors that can elevate the restaurants rank to a higher level.

A total of 27 respondents consider food safety a boost for the success of Lebanese restaurants, so they think it is a positive salient aspect for restaurant clients.

However, they do not value the matter themselves; it is pertinent to mention that the majority of this crowd related the success of the industry to mostly foreign tourists.

5.3.11.2 Examining relationships, Customers Survey Result

The purpose here is to study the relation between the two consumer preferences, whether they prefer restaurants applying food safety management systems over those that do not, and if they require seeing documentation hang in restaurants and lounges that prove following a food safety management system. The examination here is to

investigate the importance of having official documentation as a proof of execution, even if food safety systems are not a matter of importance to the respondent; this is to emphasize on the significance of a certificate, by relating it to the respondents who seemed not acquainted with the subject.

		As customers, do you require to see documentation hang in restaurants and lounges that prove following a food safety management system?	
		Yes	No
Do you prefer restaurants applying food safety management systems over those that do not?	Yes	130	15
	No	13	42

Table 21: Second Customers question relation
(Source: Customers survey result)

It showed that the majority of the people that consider food safety programs a necessity, in addition to a small number, of the respondents that do not care about the issue, require seeing documentation, proving by that the importance of an official paper sealing the proper implementation from a credible source, such as governmental sides and international auditors. Naturally, people who de-emphasize on food safety systems almost entirely answered negatively on the need to see official documentation to trust a certain quality program in case of its existence.

5.3.11.3 Examining relationships, Customers Survey Result

The below matrix displays the relation existing between the customers approval to paying a higher price for products and services provided by restaurants and other tourism organizations applying food safety management systems, and if they prefer restaurants applying food safety management systems over those that do not. A

particularly crucial fact that adopting organizations take into consideration in order to calculate their return on investment, whether consumers are willing to count quality systems as only an extra value to prioritize a restaurant over another, or they are willing to take a further step and pay the extra price.

		Would you pay a higher price for products and services provided by restaurants and other tourism organizations applying food safety management systems?	
		Yes	No
Do you prefer restaurants applying food safety management systems over those that do not?	Yes	142	3
	No	14	41

Table 22: Third Customers question relation
(Source: Customers survey result)

Preference toward restaurants applying a food safety management system has been associated with the acceptance of paying a higher price by 142 of the survey taking individuals. Naturally, the majority of the respondents who do not view the existence of a food safety system as an advantage are not willing to pay more as a price for it, nevertheless 14 out of 55 accepted to pay the extra cost. Investing in the implementation of a certain food safety system does not only create a competitive advantage over other restaurants, it also generates the opportunity of cashing back the bearded cost.

5.4 Conclusion

Qualitative data was collected for this research in the form of surveys. It was appropriate to collect qualitative data rather than quantitative in order to meet the objectives, and to better project consumers' choices and preferences, which creates

the chore of this subject. Also in order to analyze the data, related questions were cross analyzed in the form of matrixes, displayed answers created the basis on which to build the readings and develop them. The variables used in the analysis are listed below:

- Food safety and management systems application
- Cost benefit
- Competitive advantage
- Market share
- Customers' choice
- Local systems
- International systems

The analysis of the answers backed the propositions stating that an established Food safety management system, is a consideration of customers when deciding where they will eat when visiting restaurants in Lebanon.

It also showed that customers, who visit restaurants in Lebanon, feel that proof of an established food safety management system, is a weighty consideration when deciding what location to eat at. Noting that FSMS implementation do not provide a certification, just an internal report prepared by the auditors, which might be a negative point in FSMS.

However, the answers disfavored that customers visiting a restaurant in Lebanon, would be satisfied if the food safety management system put in place by the establishment was a local program rather than a food safety management system that is internationally recognized. Thus, this did not prove their rejection to a local system, just their preference for an internationally reputable system; it might be related to their mistrust in the overall local system based on many historical facts.

Chapter Six: Conclusion & Recommendations

6.1 Introduction

As the food industry is growing at an exceptionally fast pace and is getting even more global, there is a need for credible food safety and management systems, that can be adopted by the food industry around the globe. Various food system management systems have been introduced from time to time, ensuring the safety and health of consumers. There are little food safety management systems that have been recognized all over the world. These food safety management systems are HACCP; Hazard analysis and critical control points, ISO 22000; International organization for standardization, SQF 1000; Safe quality food, BRC food safety and quality management; British retail consortium and IFS; International food standards. HACCP forms the basic framework for food safety and management systems around the world (Food Safety Magazine, 2006). All systems are elaborated around the basic idea of identifying hazards, recognizing the critical points in the food chain to control and then eliminate those hazards that can have an adverse effect on human health. HACCP was first designed by NASA to eliminate any kind of contamination of food that astronauts would be consuming in the outer space. This system is based on seven basic principles. These seven principles can be applied in the food chain right from harvesting to the point of consumption. Another system that has been considered as a benchmark in food safety is known as BRC food safety and quality management system. This safety certification program has been used by 17,000 certified suppliers in over 90 countries through a network of over 80 accredited bodies (Kafel et al, 2011). Other food safety management systems, such as SQF 1000 addresses food safety and quality management for producers who are supplying the local and international food market.

6.2 Research Objectives

The Purpose of the study involved identifying the extent of influence of food safety management systems execution, on the customers' choice among restaurants

Moreover, it was aimed to classifying the image and the weight that the locally created and known systems would have in contrast with the globally renowned food safety and management systems such as HACCP, ISO ... As a base, it was essential to find out if Lebanese Ghia holding customers are cognizant of such systems. Although the survey resulted a knowledgeable majority but around 45% were uniformed on the subject; consequently, nationwide actions must be taken to raise awareness about this topic.

The survey proved that the restaurant management is committed, bearing cost-benefit analysis, to the system they claim they are implementing, by adopting the procedures in different areas of operations. The common idea of quality control systems being a cost that was not worth bearing is proved wrong because Lebanese Ghia holding customers care about such systems, and view it as a competitive advantage for the restaurant.

By describing the Local FSMS (PIC system that Dubai municipality follows) applied by the case studied (Duo Restaurant from Ghia Holding) and the resemblance of this system to the international standard systems, it is demonstrated that a local system, with less fixed cost and more market fitting standards, can substitute to a certain extent, expensive international systems. Although the survey answers stated that customers trust international systems more than locally created ones, they prefer visiting a restaurant with a local system, more than a restaurant not applying any food safety whatsoever. Furthermore, customers requested to view a physical proof, in the form of certification hang in the restaurant, knowing that FSMS has no official party that can issue such documentation.

These issues can be treated by the government's contribution of the three ministries that are involved in auditing all touristic organizations. The Ministry of Economy is involved by controlling the prices (economy.gov, 2012); also the Ministry of

Tourism by monitoring fair pricing and following the mandatory requirements such as fire exit, facilities for disabled people and etc... (Lebanon-tourism, 2012). The Ministry of Health inspects hygienic related actions (moph, 2012). Therefore, if the government follows, or issues a locally prepared food safety management system, and approves it by auditing and providing certifications, it will create a more trusting view towards the local food systems.

6.3 Main Findings and Propositions

Lebanese Ghia holding customers do care if the restaurants they are visiting have an established food safety management system in place, in fact, they prefer a restaurant adapting a system over another. Customers became more demanding for such systems, especially after the spot light that have been placed on the issue of contaminated food the last couple of months.

Logically, a tangible evidence is required to prove that the organization has completed all the steps properly; Therefore, Lebanese Ghia holding customers expect to see paper proof or a certificate for the Food Safety Management System that is being implemented.

Lebanese market would not trust a local food Safety Management System to substitute an internationally known system. This issue can be a barrier for organizations willing to invest in a local system, since any competitor, with the ability to afford ISO or HACCP or similar systems, will have a strong advantage over the organization adopting a local system.

The propositions stating that customers visiting a restaurant in Lebanon would be satisfied if the food safety management system put in place by the establishment was a local program rather than a system that is internationally recognized; is rejected. Actually, Lebanese Ghia holding customers prefer international standards and might favor a restaurant over another because of this fact. Many factors caused this mistrust, and one is the woeful reputation of auditors, another factor is the absence of an official governmental involvement in the private sector audits.

Nonetheless, various government and non government organizations are working together recently, increasing the awareness among consumers for food safety, and to advocate stronger government enforcement of safety regulations. The youth of the country are given seminars and training by organizations like Office of Transition Initiatives (OTI) and EMCOR Facilities Services (EFS), both multinational but locally environmental-aware organizations. These youths are visiting homes in their communities to make other people aware of food safety issues. These organizations are also helping by providing free consultation to the local governments to implement a plan to monitor the import of food in their areas. Sessions have also been conducted, to raise awareness for issues related to butcher practices in local areas and to implement a new kind of waste meat disposal plan. Earlier, at the end of the day, butchers used to dispose of unsold meat on streets which raises serious health issues among local communities. These activists are also working on to strengthen the role of the Directorate of Consumer Protection, and help build its capacity to respond to complaints and encouraging consumers to report offenders.

Even the social media sites like Facebook have been used by organizations to make the consumers aware of food related issues. One such organization is the Lebanese Association for Food Safety. LAFS is officially affiliated to the International Association for Food Protection (IAFP), which is one of the biggest and most prominent international organizations in food safety. LAFS was established in 2010 by a group of dedicated scientist who believe that Lebanese Ghia holding customers need to become aware of the issues related to food safety. Many Lebanese citizens and international tourists are being victimized because of ignorance, lack of awareness, poor practices and unsafe food conditions. The main goals of organizations like LAFS are:

1. To create awareness among consumers about food safety issues, hazards, problems and its solutions.
2. To inform the public about their rights and responsibilities.
3. To protect the public at large, from food related diseases that arises because of ignorance, neglect and poor practises in the food industry.

4. To empower Lebanese food exporters by providing them with the knowledge, skills and expertise to ensure that their products meet the standards of international markets.

The LAFS provides recognition to local Lebanese restaurants and food joints by offering them certification for Food Safety Seal of Commitment. Restaurants that acquire this safety certification would have successfully completed a full and thorough program of facility inspection and staff training. This certification also means that the business had been verified by LAFS members to be operating by the highest standards of food safety. LAFS adopted rigorous methods for ensuring food safety among those businesses which have been issued this seal of safety. This certification valid for three months only is subject to renewal as long as that business keeps passing the LAFS inspection procedures. So because of the efforts of these various local and international organizations, food businesses have raised their food safety bar, and customers have become more aware of food safety issues and are encouraged to report any offenders.

As awareness related to food safety has been increasing among the Lebanese Ghia holding customers, they are getting more acquainted with the various International standards for food safety and whether or not the local businesses are meeting those standards or not. Various other organizations are issuing certification such as BMC Certification Lebanon; BMC helps organization design and implement solutions; companies can tailor the system to fit their goals. Also, TQCS International Lebanon, Total Quality Certification Services is an accredited, third party certification body providing certification for a different kind of systems (Quality management systems, Environmental systems...). These certifications are issued after rigorous staff training and facility inspection. So the restaurants that have been issued these certifications have passed the international standards of food safety. The certification is one of the proofs that Lebanese Ghia holding customers can look for whenever they go to any restaurant or eating joint.

Another proof might be the seal of commitment, this seal of commitment is given on the basis of rigorous inspection procedures which involve:

1. Intensive hands-on training of staff members and managers to make them aware of the various consequences of inadequate food management system.
2. Thorough inspection and assessment of every aspect of the facilities, being a restaurant, food service provider or food manufacturer.
3. Repeated inspection of samples of food and water from the facility tested in accredited labs.
4. Multiple audits to ensure that the facility in question indeed meets the highest standards of food safety.

Various government organizations are also working hand in hand with LAFS to bring necessary changes to the existing food safety management system in Lebanon.

6.4 Limitations and Weaknesses

From my own perspective, the research was not free from some limitations. First of all the sample size chosen could have been larger and thus more representative of the population studied. The number of industries could have been larger and more diverse as well, and the number of companies could have been more with more versatility. Furthermore, the geographic regions were limited and could have been diversified. A future research shall consider some other variables and shall be wider in terms of locations. A very few researches have considered the importance food management systems. A future research that would shade light on the importance of applying those food management systems would be worthwhile. Overall, objective of the research was satisfied despite all the limitations that are discussed.

6.5 Recommendations

Main obstacles that arise local food safety systems diffusion may have a common solution. Restaurants owners adapting local systems are facing lack of official documentation, and consumer preference towards reputable quality systems, due to little trust in local systems structure. For these reasons, Lebanese ministries can create one suitable settlement; as mentioned before three ministries are involved in auditing food related organizations, Ministry of Economy, Ministry of Tourism, and

Ministry of Health. These three ministries can create one joint committee, with duties that include:

- Creating a common system for all organizations to follow
- Providing paid optional training for organizations employees
- Auditing system`s application
- Issuing certifications with an expiry date.

The government can use the help provided by some expert organizations of the private sector, to create a local quality system that includes international standards, and may be adapted in the local market; moreover training specialists can assist in creating this committee from qualified and professional members that matches, in terms of skills international auditors.

All the restaurants adapting the system will have to train their employees, and for organizations that are willing to outsource the training function; specialized committee members can provide the coaching.

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APPENDICES

Questionnaire

1. Are you aware of food safety management systems?
 - A. Yes
 - B. No

2. What kind of food safety management systems you apply?
 - A. FSMS
 - B. BRC food safety and quality management
 - C. Other, please specify

3. How does the system you apply compare to the internationally recognized food safety and quality management systems?
 - A. Same qualifications and results
 - B. Better qualifications and results
 - C. Inferior qualifications and results
 - D. Others: Please specify.....

4. As a firm that adopts a food safety management system, what are the advantages?
 - A. Better quality of service
 - B. Better quality of products
 - C. Higher employee motivation
 - D. Better management
 - E. Higher competitive edge
 - F. All of the above
 - G. Others

5. Why do you follow your current food safety and management systems rather than an internationally recognized one?
 - A. Cheaper
 - B. Less standards to follow
 - C. Better cost-benefit analysis

6. Do you think that with the food safety management system you apply, you could earn bigger market share?
 - A. Yes
 - B. No

7. What are the cons of applying a food safety and management system?
 - A. Higher cost structure
 - B. Work-stress for employees
 - C. Stricter policies and procedures to follow
 - D. Restrictions regarding food and related products
 - E. Others

Questionnaire

Kindly, fill up the following questionnaire. All provided information will be dealt with under strict confidentiality.

1. Are you aware of food safety management systems?
 - A. Yes
 - B. No

2. Do you think food safety management systems are applied in Lebanon?
 - A. Yes
 - B. No

3. Do such systems add value and create a competitive advantage for the adopting restaurants/organizations?
 - A. Yes
 - B. No

4. Food safety management systems are important for the success of Lebanese restaurants.
 - A. SA
 - B. A
 - C. N
 - D. D
 - E. SD

5. Do you prefer restaurants applying food safety management systems over those that do not?
 - A. Yes
 - B. No

6. What do you think is the best advantage of applying food safety management systems such as HACCP, BRC, ISO2200, SQF& IFS?

- A. Better food quality
 - B. Better service
 - C. Meeting industry standards
 - D. International recognition and completion
 - E. Others
 - F. All of the above
7. As customers, do you require to see documentation hang in restaurants and lounges that prove following a food safety management system?
- A. Yes
 - B. No
8. Which food safety management systems would you most likely trust?
- A. Locally created and applied
 - B. Internationally recognized systems
 - C. Others
9. Would you pay a higher price for products and services provided by restaurants and other tourism organizations applying food safety management systems?
- A. Yes
 - B. No
10. If your answer was “No” to the first question please skip the following question: Which of the following internationally applied food safety management systems that are you aware of, think is the best?
- A.HAACP
 - B. BRC food safety and quality management
 - C. ISO 22000
 - D.SQF 1000
 - E. IFS

Ghia Holding Survey Results

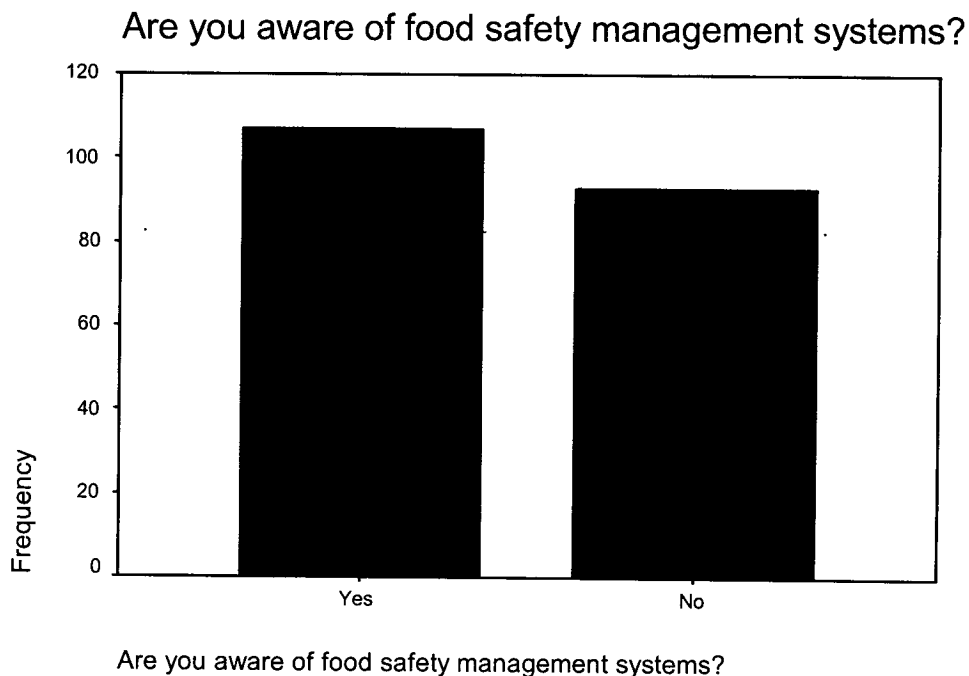


Figure 1: Awareness for food safety management systems
 (Source: Customers survey result)

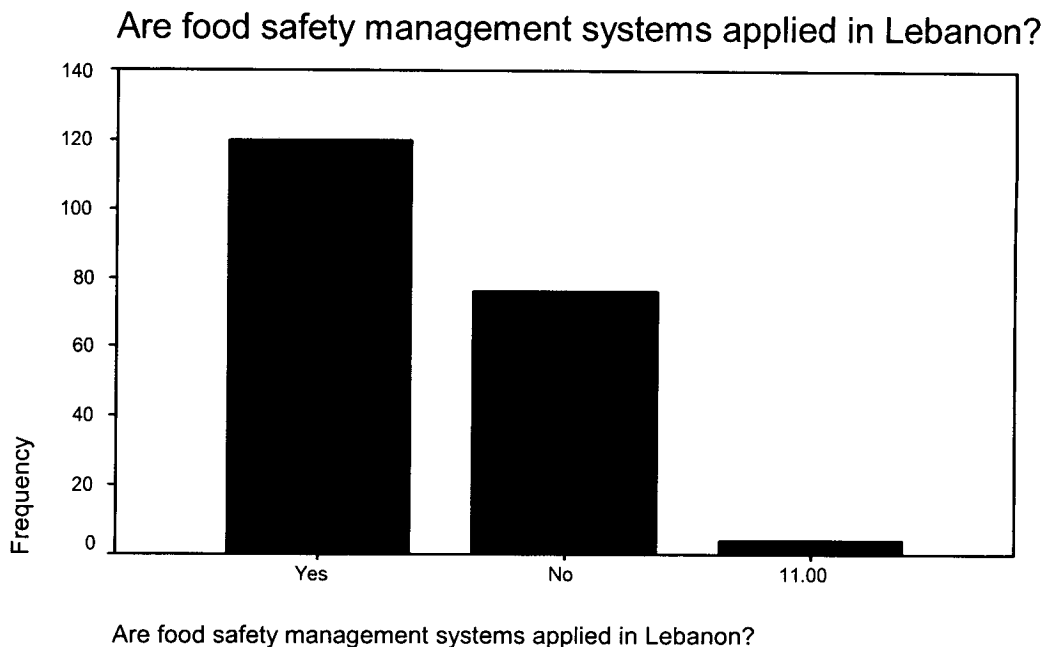


Figure 2: Food safety management systems application in Lebanon
 (Source: Customers survey result)

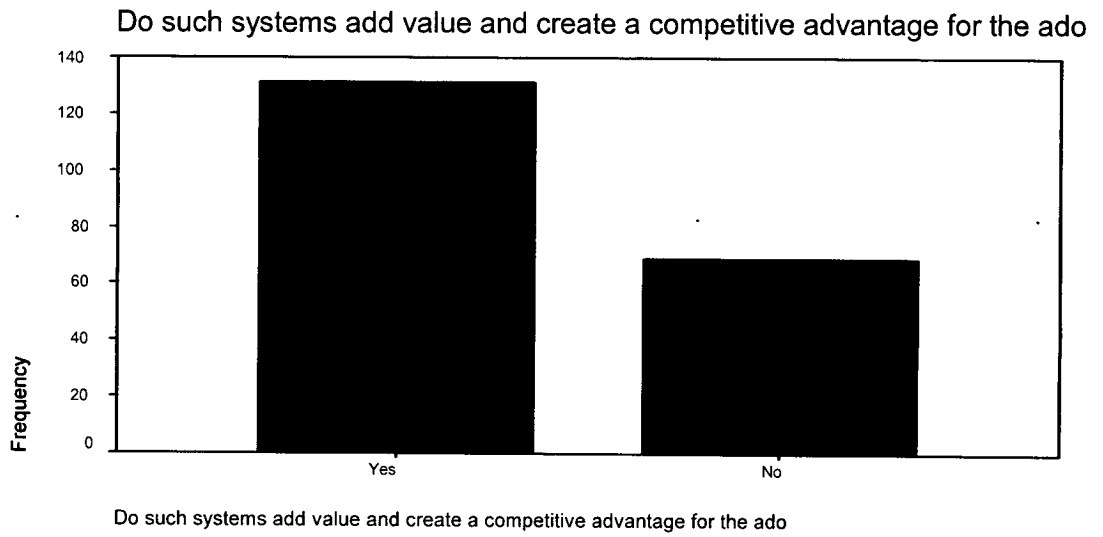


Figure 3: Value added for adopting organizations
 (Source: Customers survey result)

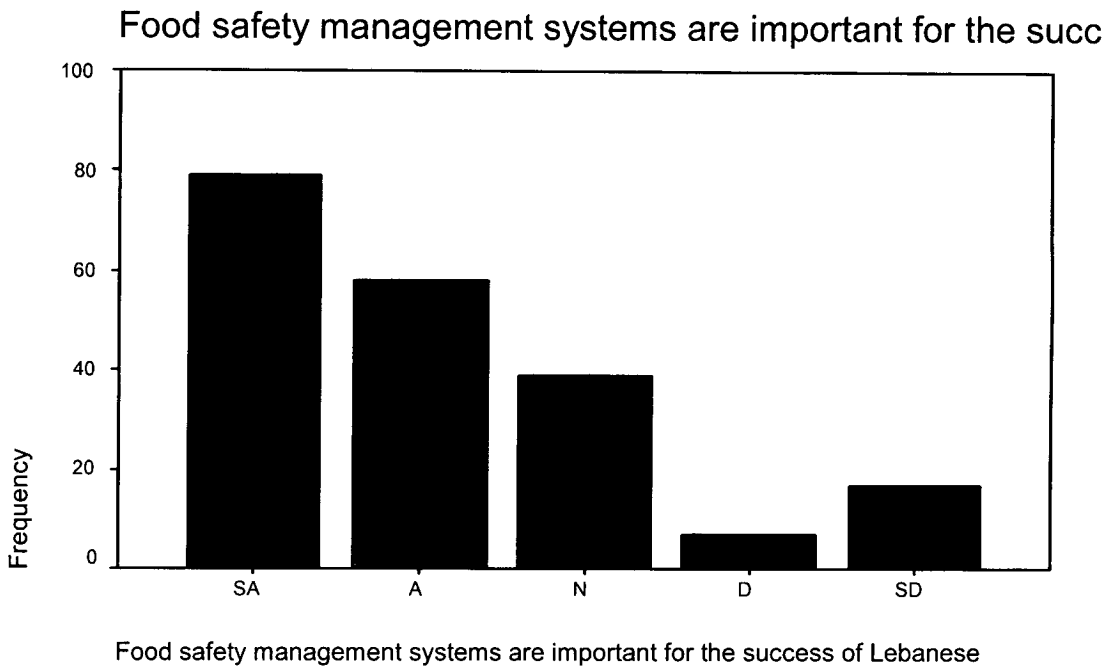


Figure 4: Food safety management systems importance.
 (Source: Customers survey result)

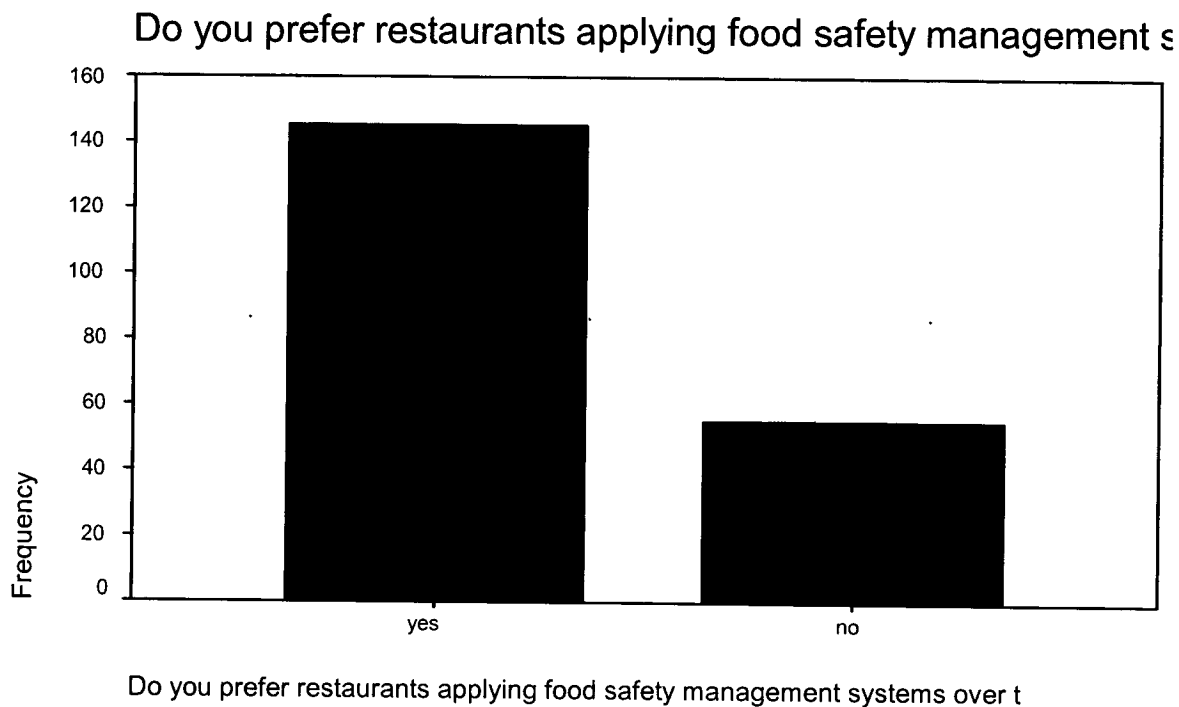


Figure 5: Customers choice of restaurants
 (Source: Customers survey result)

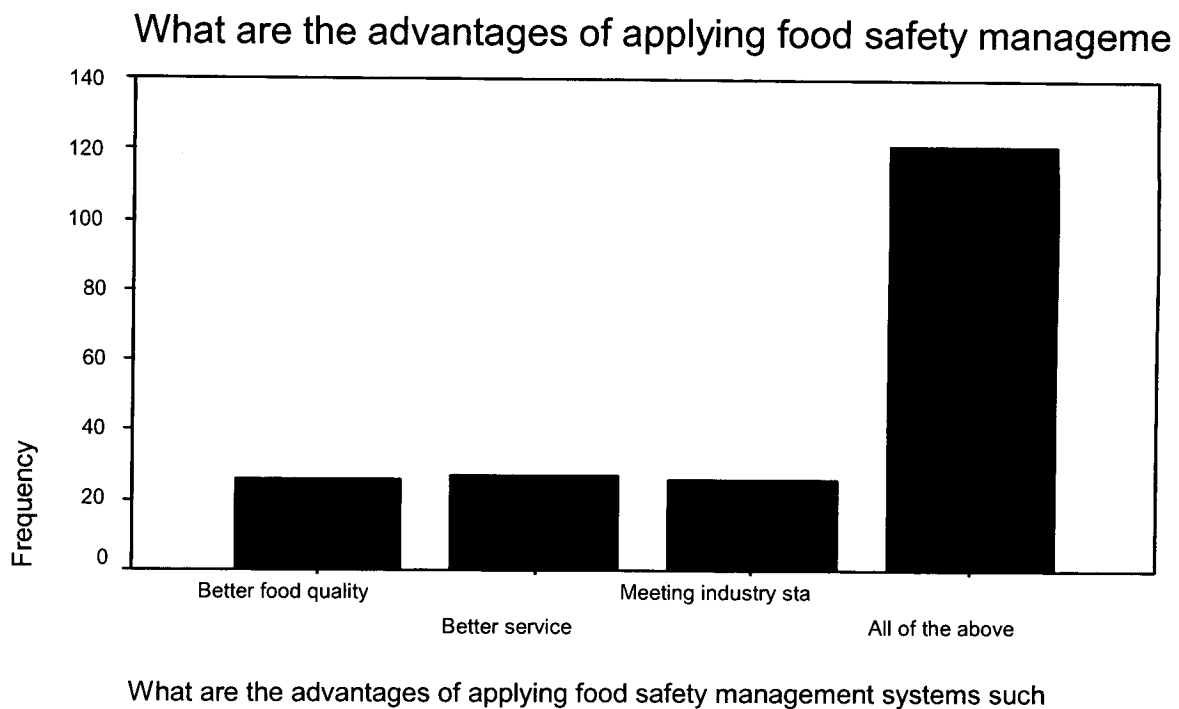
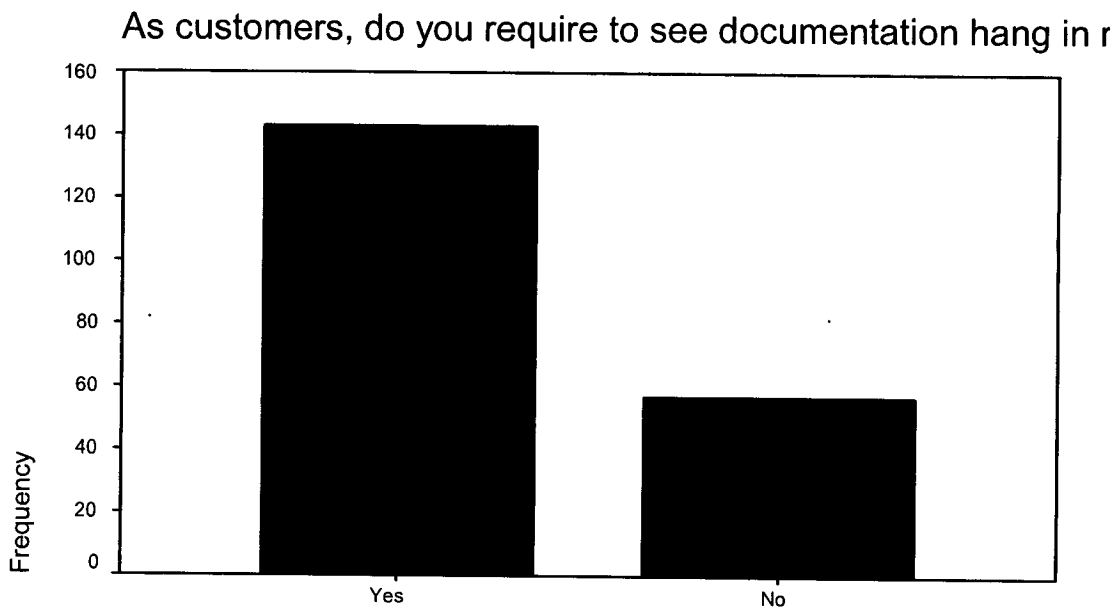
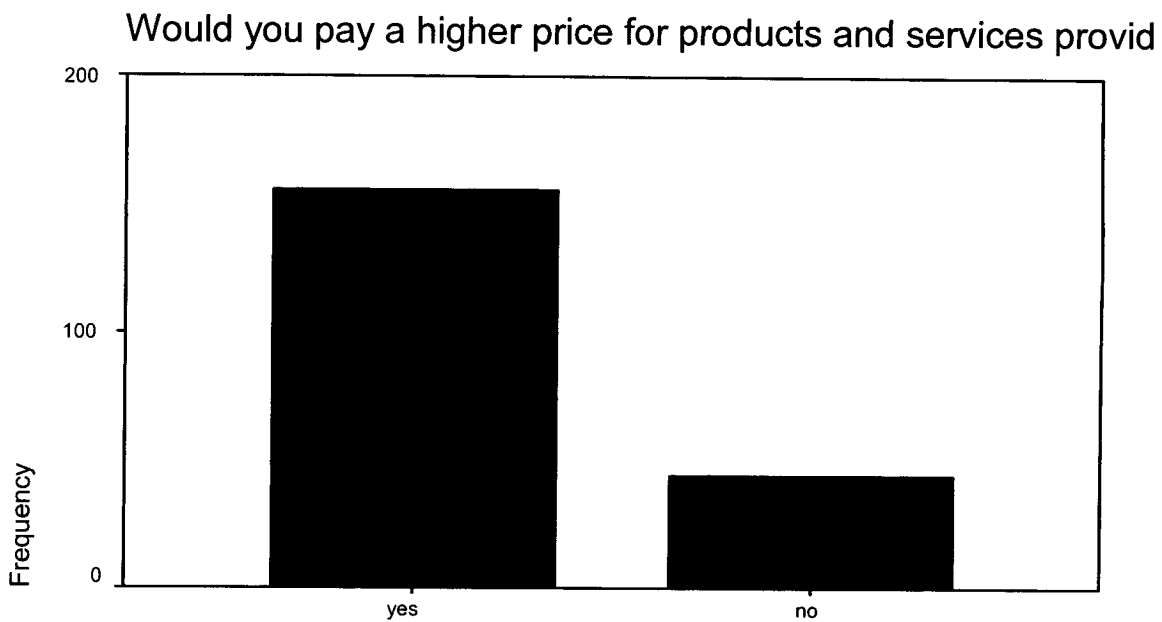


Figure 6: Food safety systems advantages
 (Source: Customers survey result)



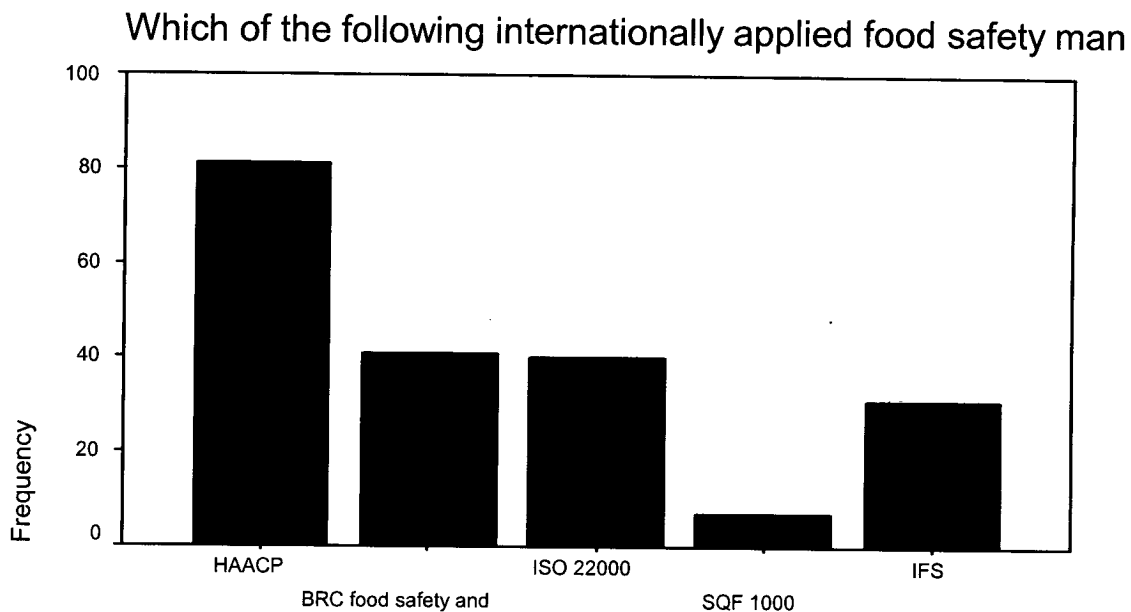
As customers, do you require to see documentation hang in restaurants an

Figure 7: Official documentation
(Source: Customers survey result)



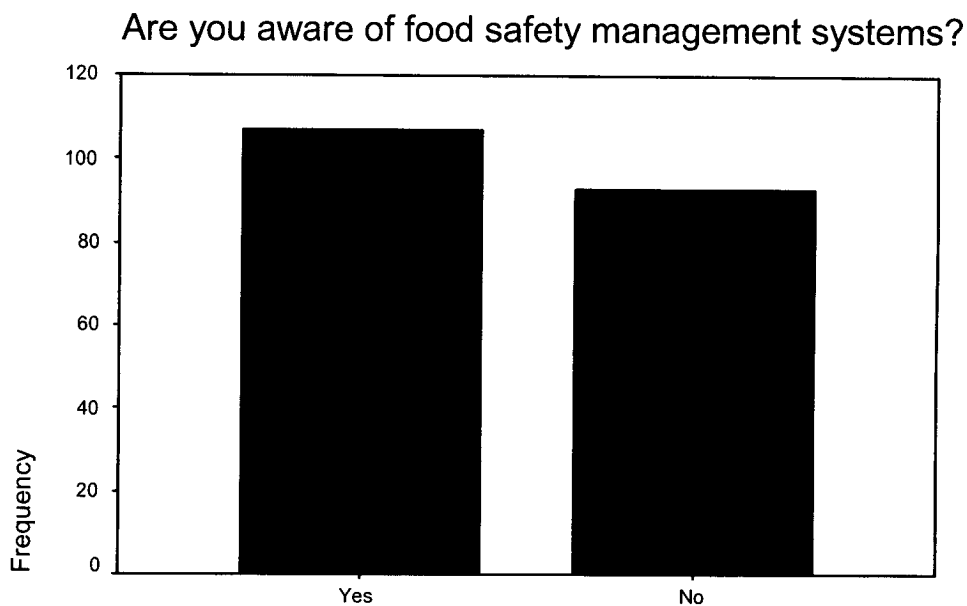
Would you pay a higher price for products and services provided by resta

Figure 8: Price sensitivity
(Source: Customers survey result)



Which of the following internationally applied food safety management sy

Figure 9: Customer’s choice for best system
 (Source: Customers survey result)



Are you aware of food safety management systems?

Figure 10: Awareness for food safety management systems
 (Source: Customers survey result)

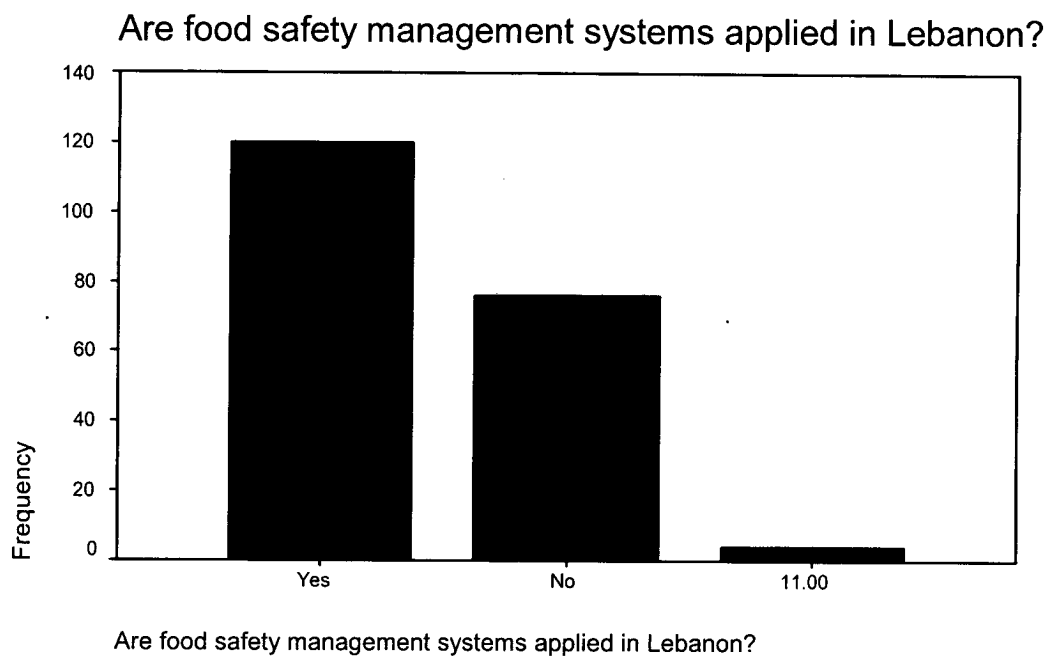


Figure 11: Food safety management systems application in Lebanon
 (Source: Customers survey result)

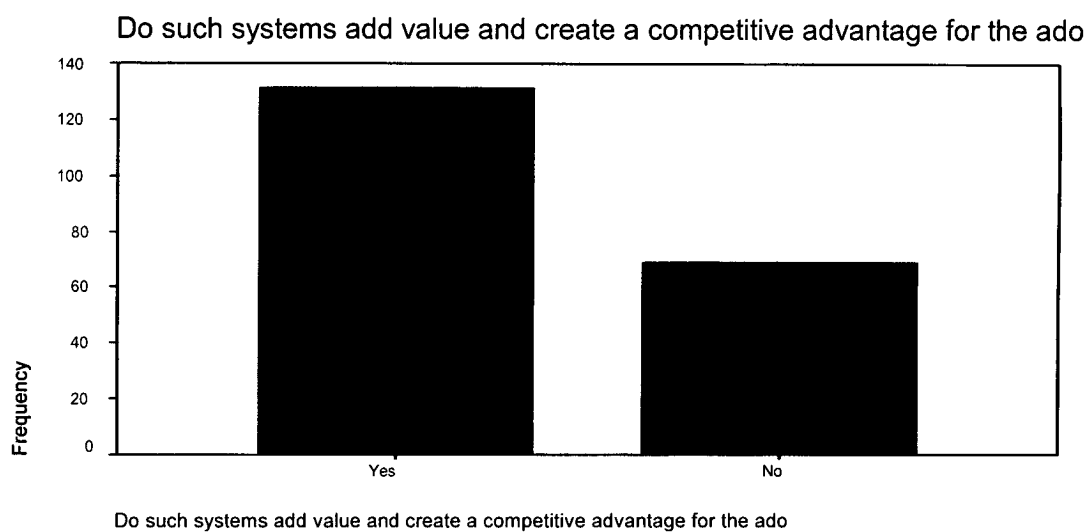


Figure 12: Value added for adopting organizations
 (Source: Customers survey result)

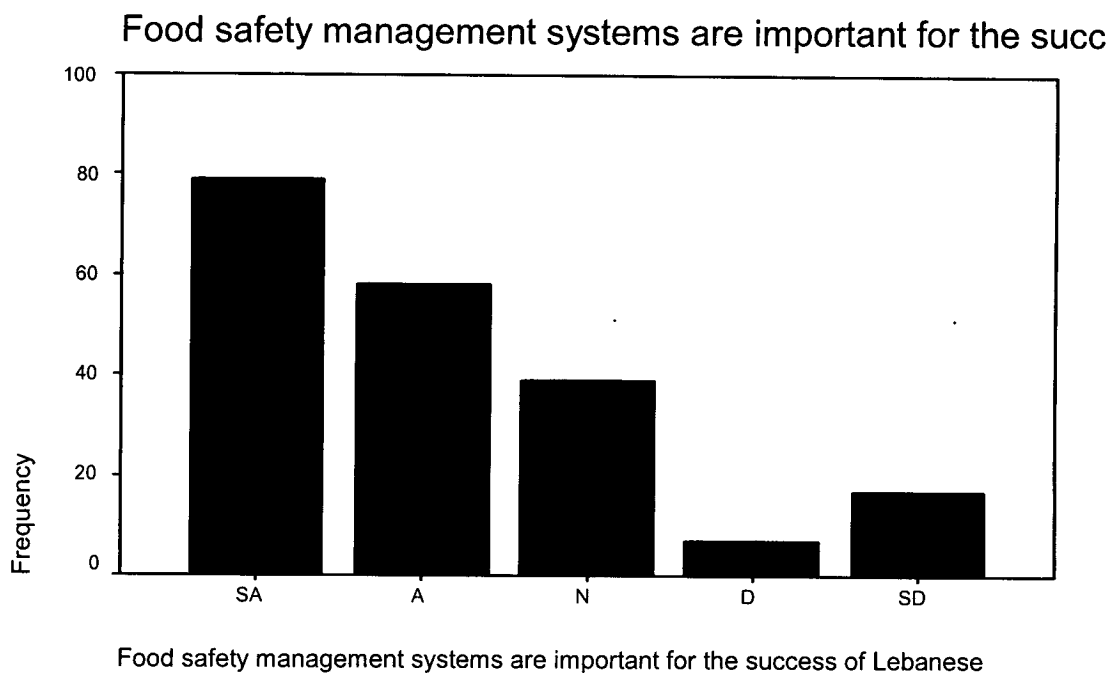


Figure 13: Food safety management systems importance.
(Source: Customers survey result)

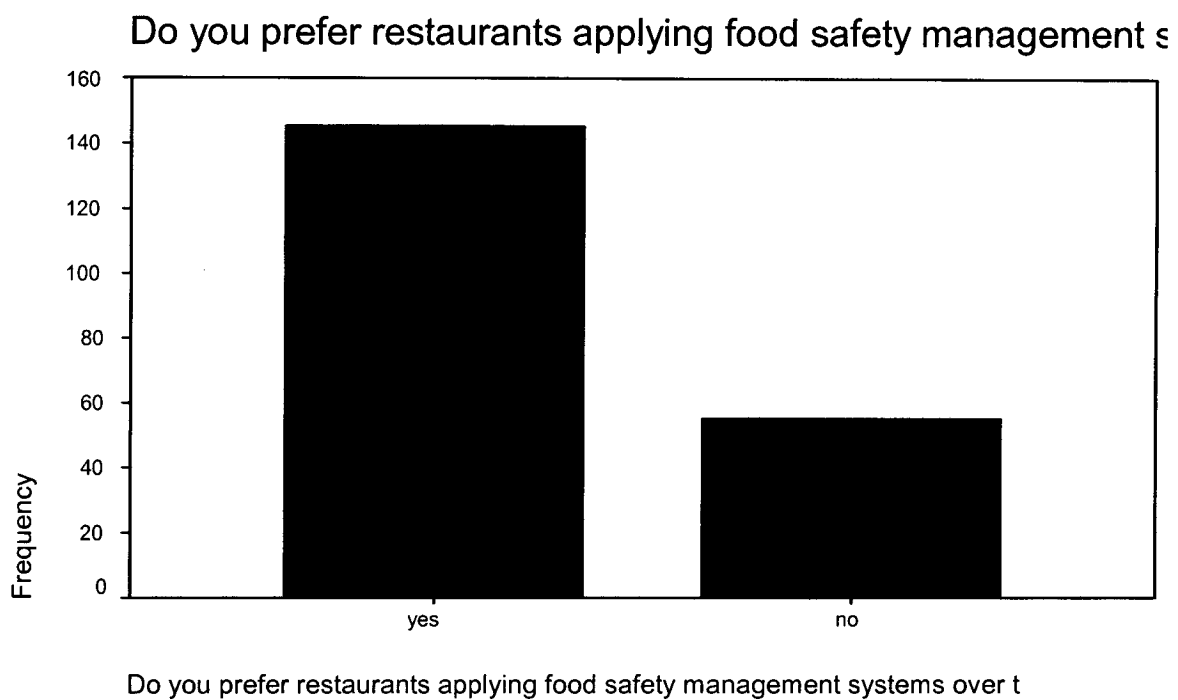


Figure 14: Customers choice of restaurants
(Source: Customers survey result)

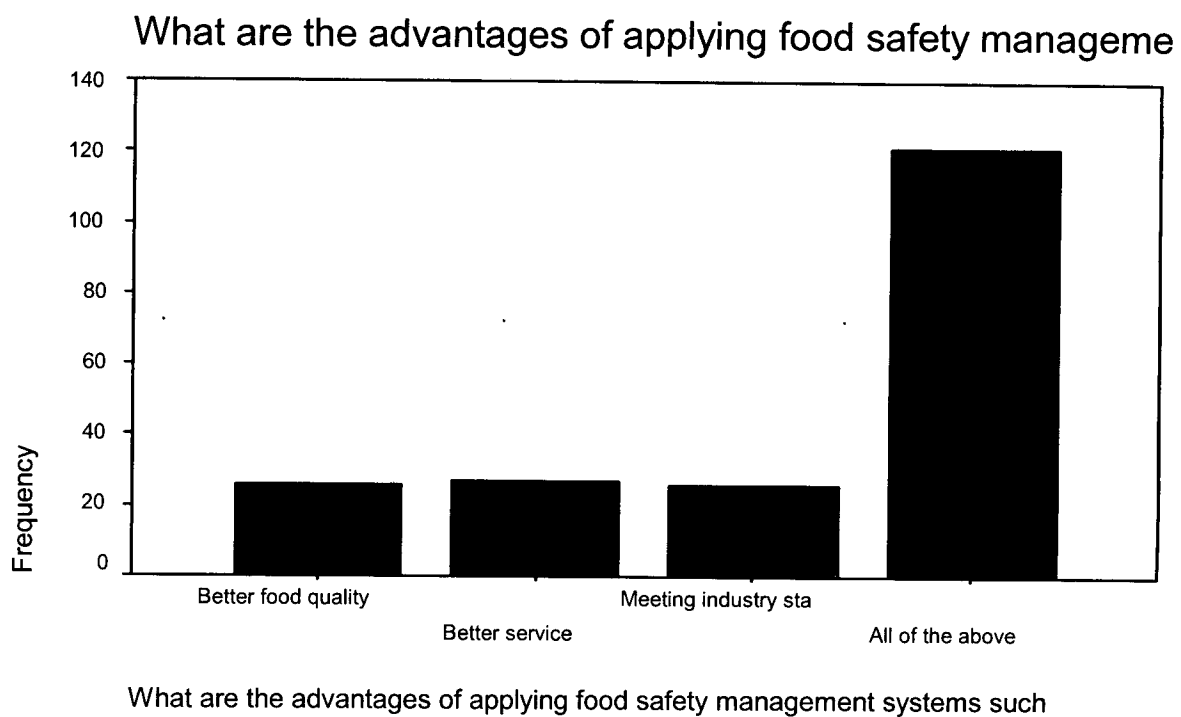


Figure 15: Food safety systems advantages
(Source: Customers survey result)

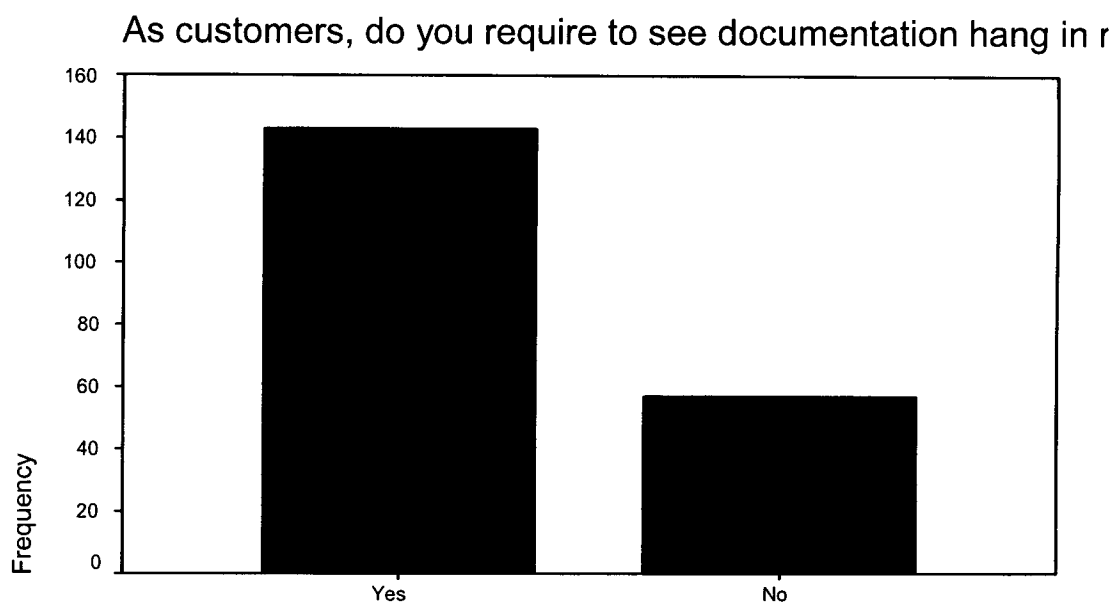


Figure 16: Official documentation
(Source: Customers survey result)

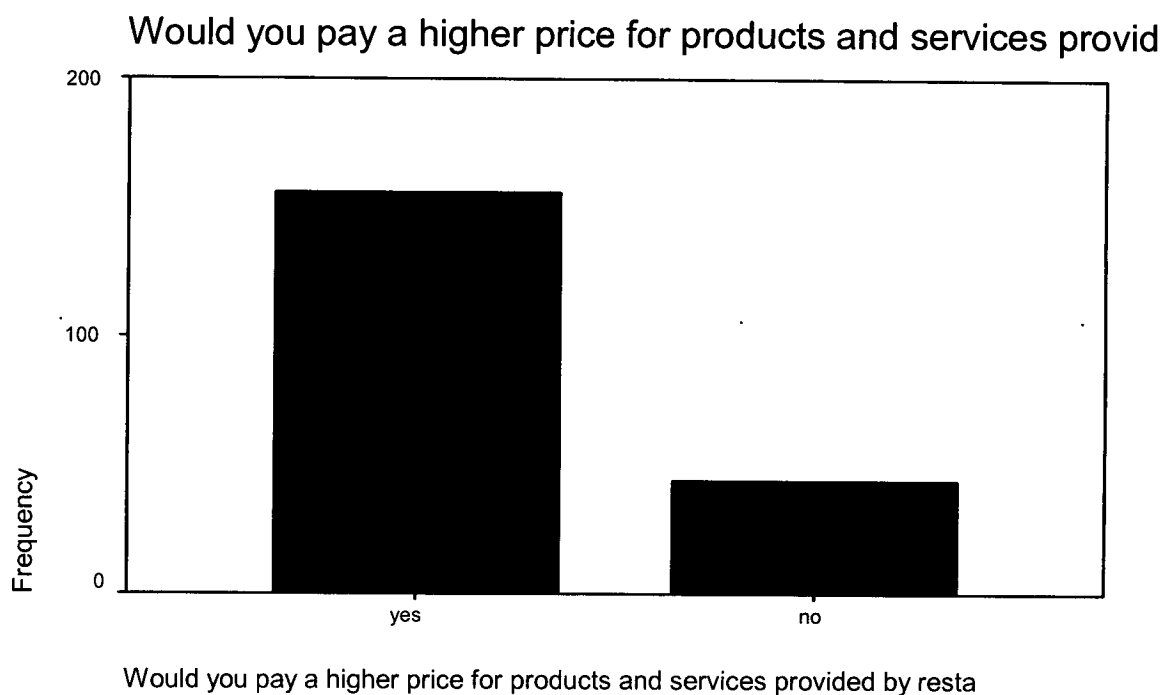


Figure 17: Price sensitivity
(Source: Customers survey result)

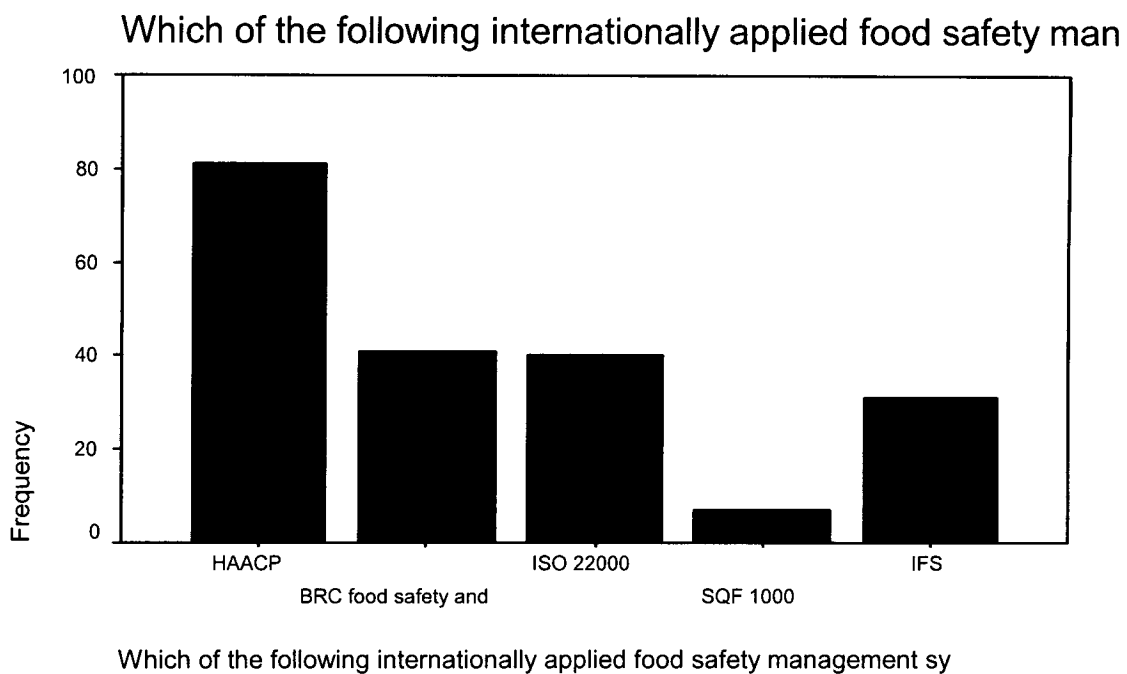


Figure 18: Customer's choice for best system
(Source: Customers survey result)

Why do you follow your current food safety and management systems rather

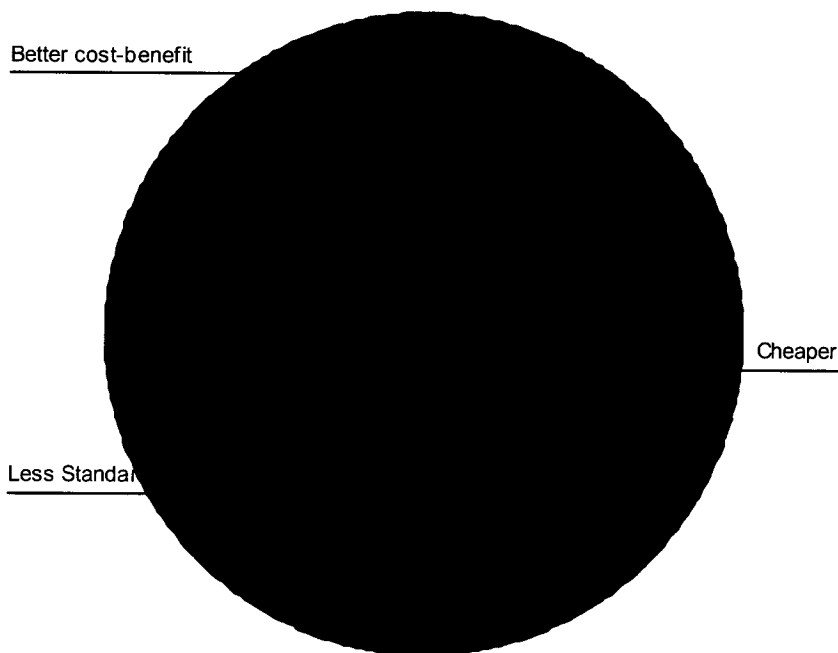


Figure 19: Reasons for following food safety management systems
(Source: Duo staff survey result)

nk that with the food safety management system you apply,

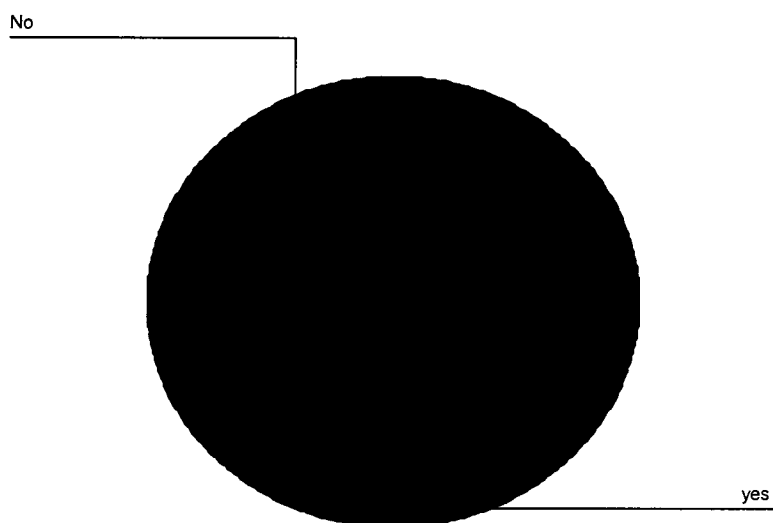


Figure 20: Advantages of following FSMS
(Source: Duo staff survey result)

the cons of applying a food safety and management

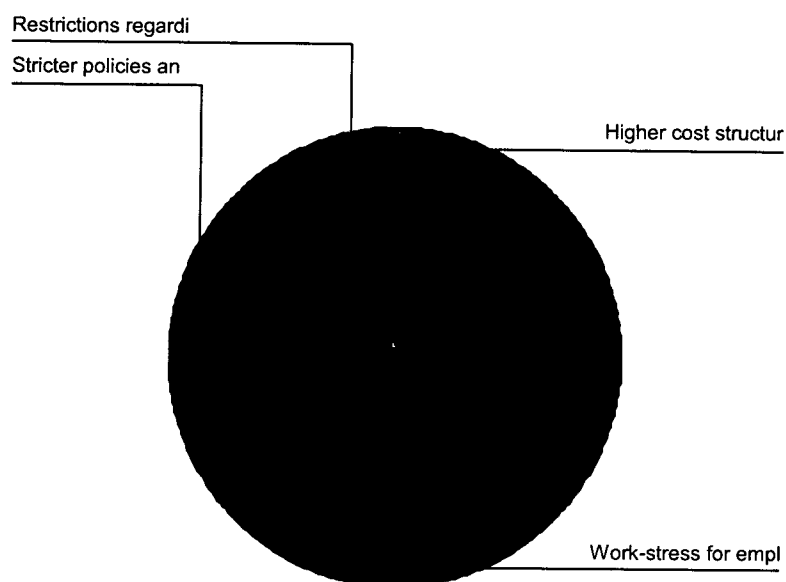


Figure 21: Cons of applying food safety management systems
(Source: Duo staff survey result)



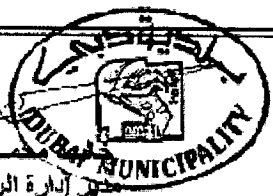
 GOVERNMENT OF DUBAI	بلدية دبي DUBAI MUNICIPALITY	
Ref: 812/02/02/1/1101638	التاريخ: 2011/01/31	
External Circular	تعميم خارجي	
Subject: Requirements Pertaining to Person In Charge Certified in Food Safety	الموضوع: متطلبات اعتماد المشرف الصحي في المؤسسات الغذائية	
To <u>All Food Establishments in the Emirate of Dubai;</u>	إلى : <u>جميع المؤسسات الغذائية في إمارة دبي;</u>	
<p>In an effort to increase managerial responsibility in ensuring on-site management of food safety and to ensure self-compliance to food safety regulations in food establishments, the Food Control Department of Dubai Municipality has issued the following requirements:</p>	<p>في إطار الجهود المبذولة لتعزيز سلامة الأغذية، وتفويض المسؤولية الإدارية وتأكيد الرقابة الذاتية بالمؤسسات الغذائية، لضمان أفضل التزام بالقوانين وتواصلات المعتمدة، تصدر إدارة الرقابة الغذائية ببداية دبي لمتطلبات الرقابة (المرفقة مع هذا التعميم):</p>	
<p>Section I <i>Rules and regulations pertaining to the requirement of a trained and certified Person in-Charge in all food establishments</i></p>	<p>1. القوانين والتشريعات واللوائح المتعلقة بالمشرف الصحي المعتمد في جميع المؤسسات الغذائية.</p>	
<p>Section II <i>Requirements for Awarding Bodies, Training Companies and Trainers who offer Accredited Training Programs to Persons in Charge</i></p>	<p>2. متطلبات الهيئات الممنحة وشركت التدريب والتدريبين الذين يقدمون برنامج تدريب معتمد للمشرف الصحي.</p>	
 مدير إدارة الرقابة الغذائية		
تصنيف: + غير سروري 0 غير سروري جزئياً - سروري		
يوصى بشراء نسخة من مطبعة سويسرا ميهب ريميه العيث ومفوضات المبيعات. Our Vision - To ensure an excellent top hat provided the assurance of success and satisfaction to all		
صيف 67 P.O. Box 67 دبي، الإمارات العربية المتحدة - هاتف: 49714 221 5535، فاكس: 49714 221 6666، تليفون: 49668، تليفون: 49668 Balady EM Telex 49668 E-mail: info@dm.gov.ae Website: www.dm.gov.ae		

Figure 22: External circular regarding PIC
(Source: Dubai Municipality)