بســم الله الرحمن الرحيم

Sudan University of Science and Technology
College of Graduate Studies
Deanship of Development and Quality

Risk Assessment in Food Industry Using (SWOT) Analyses at Private Sector

(Case Study: MOAWIA ELBERIER GROUP)

تقييم المخاطر في الصناعات الغذائية باستخدام نموذج تحليل (سوات) في القطاع الخاص

(دراسة حالة: مجموعة شركات معاوية البرير)

A Thesis Submitted as Partial Fulfillment for the Degree M.Sc. In Total Quality Management and Excellence

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الإستهــلال

بسم الله الرحمن الرحيم

قال تعالى:

(وَمَنْ يَتَّقِ اللَّهَ يَجْعَلْ لَهُ مَخْرَجًا (2) وَيَرْزُقْهُ مِنْ حَيْثُ لَا يَحْتَسِبُ وَمَنْ يَتَوَكَّلْ عَلَى اللَّهِ

فَهُوَ حَسْبُهُ إِنَّ اللَّهَ بَالِغُ أَمْرِهِ قَدْ جَعَلَ اللَّهُ لِكُلِّ شَيْءٍ قَدْرًا (3))

صدق الله العظيم
سورة الطلاق الأيات (2-3)

Dedication

To the person who reach the message,, He advised the people,, To the prophet of mercy and light of the worlds

Prophet Mohammad

Who taught me tender without waiting,, Dear Uncle

Dr: Abdullah Al Saied Abdullah

To my angle in life,, To the meaning of love and tenderness

My Mother

To whom I bear his name with all pride

My Father

To the companions of the path,, Their hearts are good and their intentions are truthful

My sisters

Acknowledgement

I would like to thank all my professors at the Department of Quality and Excellence at the University of Sudan For Science and Technology

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MOAWIA ELBERIER GROUP

The Sudanese and German Cake Factory

Dr: Abdul-Rahman Mohammed Ahmed

Eng: Shehab Mohammed Al-Mutasim

Abstract

This study aimed to identify the effect "SWOT" analyses (Strengths, Weaknesses, Opportunities, Threats) to reduce the risk ratio that can be experience by businesses in a changing environment.

The study used a descriptive analytical approach as questionnaire was used as a tool for data collection.

The study population is composed of managers, employees and labors, the researcher distributed 3 questionnaires to managers, employees and labors. The researcher targeted all managers and the total number was16, 25 employees were targeted and had 30 employees and 26 labors were targeted and the total number was 50.

The study reached the following results:

1- For the benefit of the company consider re- training employees.

2- Reduce daily working hours, or increase hours of rest.

3- Put stickers that show the workers a danger in this place, and translate the warnings in the machines.

4- Review the complaints submitted to the manager to solve the problems in the company.

مستخلص البحث

هدفت هذه الدراسة الى تحديد أثر تحليل (سوات) على تقليل نسبة المخاطر التي يمكن أن تتعرض لها مؤسسات الأعمال في ظل بيئة متغيرة .

إستخدمت الدراسة المنهج الوصفي التحليلي، كما إستخدمت الاستبانة كأداة لجمع البيانات. يتكون مجتمع الدراسة من المدراء, الموظفين والعمال قامت الباحثة بتوزيع 3 استبيانات استهدف الباحث كل المدراء وكانوا 16 مديرا"، استهدف 25 من الموظفين وكان عددهم 30 موظفا"، و26 من العمال وكان عددهم 50 عاملا"، وتم تحليل المعلومات باستخدام لابرنامج الحزم الاحصائية للعلوم الاجتماعية.

توصلت الدراسة الى النتائج التالية:

1- من مصلحة الشركة اعادة النظر في موضوع تدريب العاملين

2- تقليل ساعات العمل، او زيادة ساعات الراحة

3- وضع لافتات في اماكن الخطر لتنبية العاملين

4- مراجعة الشكاوى التي تقدم للمدير للبحث عن الحلول

Table of contents

List of tables

List of figures

CHAPTER ONE

GENERAL FRAMEWORK

CHAPTER ONE
GENERAL FRAMEWORK

1- Introduction

(Strengths, Weaknesses, Opportunities and Threats) "SWOT" analyses as it is known addresses examine and explore the environment that will govern the work of businesses are internal and external environment. It is part of trying to examine the internal system for an enterprise to identify the strengths that are characterized by different institution and weaknesses experienced by those systems.

As regards the external environment, the (SWOT) analyses predict the opportunities offered by the environment of the institution as well as the threats that can be exposed to the external environment. The attempt to seize the opportunities offered by the external environment of the corporation, which certainly include the risk ratio, if the production of a commodity or a new service or inter into a new market, expanding the current market, or increase the diversity of goods and service provided.

The process of the face of the threats that may be exposed to the economic institution in which the side of risk when you do not take the appropriate action at the appropriate time depending on the accurate prediction and efficient system. The (SWOT) analyses is an important and necessary analytical tool for all businesses, especially the industrial ones because they enable the management of these institution to determine necessary to formulate appropriate strategies trends in light of the ongoing environmental changes and work to minimize the risks that can be exposed. The rapid and continuous an economic environment changes, technology, socially, and culturally make risk measure faces all institutions and economic activities and events around the world and thereby on the administrations of these corporation to anticipate effectively and continuing to face all kinds of risks and formulate ways to avoid them and prevent them.

1.2 Importance of study

The importances of this study as an attempt is analytically and academically link one of the pervasive and strategic analyses tools and the style of the risks that could be exposed to private sector corporation businesses in the face of a rapidly changing environment, growth and development assessment.

1.3 The statement of the problem

The impact of (SWOT) analyses to reducing the risk at industrial enterprises in a rapidly changing environment.

1.4 Objective of the study

The study aims to achieve the following objective:

To determine the effect (SWOT) analyses to reduce the risk ratio that can be experience by businesses in a changing environment.

1.5 Hypotheses of the study

The study is based on the following premise:

The (SWOT) analysis has a positive effect in reducing the risk ratio that can be exposed to Private Sector Corporation.

CHAPTER TOW

LITERATURE REVIEW

CHAPTER TOW

LITERATURE REVIEW

2.1 Previous Studies

"SWOT" analysis provides a structure for analyzing either your own strengths and weaknesses, and the opportunities and threats you face, or in a work context for analyzing the strengths, weaknesses, opportunities and threats a business or event faces. Ideally it is one step in a process which helps you to:

1. appreciate the strengths of a situation, and you may then decide to build on these;

2. define the weaknesses, which you might choose to minimize

3. make the most of the opportunities that present themselves, and

4. Recognize the possible threats and treat them in a planned and organized way.

(SWOT) analyses are not ends in themselves but a step before some action planning. (SWOT) analyses usually benefit from discussion, get other people's perspectives. Remember to be realistic and focused on what really happens. In a SWOT analysis you want to note issues under the four headings. If you are new to the process the following questions may be helpful prompts to your thinking.

Strengths

1- What are your personal strengths?

2- What does the company do well?

3- Where does the organization compete well?

Weaknesses

1- What can be developed?

2- What could you improve?

3- What is working less optimally than you wish?

Opportunities

1- If there were no constraints what would you like to do?

2- What might be possible?

3- What will happen in the next few years?

Threats

1- What are the barriers to your development?

2- What sort of obstacles do you face?

3- Who else might move in a take over your tasks / job / business?

SWOT analyses lead to asking difficult questions but the structure it gives helps people to focus on parts of the problem or sub-issues separately. Decisions can be made about these and in discussing components of an issue the whole is seen more clearly.

An example

A university society carrying out (SWOT) analysis may find:

Strengths

We have 40 members and get subs from them. Being small means we can adapt our programmed each year to meet our member's requests. We have a simple budget process and decisions are made by a team of four. People like us and we are a friendly group. We are small enough that we don't have big overheads so we give value for the subs.

Weaknesses

We are too small to be represented on Union Council. We tend to do the same things each year in the same way. When Jim was ill last year we didn't have back-up, in other words we don't have extra people with time to cover if someone is off.

Opportunities

We have room to grow, we would benefit from recruiting more members. More members and a bigger organizing committee could do more events and thereby build the group. More members mean larger budgets, more options for activities.

Threats

If we change the way we do things too much the current group may leave. Some members say they like the small friendly nature of the group.

Having produced the SWOT data the society needs to plan. Is it worth the risk of losing some people from the current group to grow the society? Would the benefits of more people and money, and therefore more events actually be better all round? Would that be a win-win situation? Is small really beautiful in this case?

So SWOT is about making a structured analysis of yourself, an activity, an organization, a company or event as a prelude to action planning.

Source: (Pauline Kneale and Sam Aspin all of the School of Geography at the University of Leeds with support from the White Rose for Enterprise and the National Teaching Fellowship Scheme).

2.2 Quality

2.2.1 History of quality

An overview of how the concepts and processes of quality have evolved from the craft guilds of medieval Europe to the workplace of today. (European Centre for Modern Languages 1994).

Quality in manufacturing is a measure of and excellence or the state of freedom from defects and shortcomings significant inequalities through strict adherence to measurable and achievable standards to check for the completion of the homogeneity and uniformity in output satisfy the specific requirements of customers or users.

ISO 8402-1986 defines quality as "The overall features and characteristics of a product or service that make it able to meet the needs explicitly mentioned or included.

2.2.2 The quality from technical point

Quality is a set of product characteristics that determines the suitability of the product to perform the desired function as expected by the consumer. Specifications are the primary determinants of a product in order to achieve its

intended purpose. Through which all parties can understand each other and resolve differences in the event of their outbreak. (Dictionary quality business, October 2012)

2.2.3 Four pillars of the quality

Philip Crosby (June 18, 1926 – August 18, 2001) identifies four pillars of quality, as follows:

1-Definition of quality is the matching requirements

2-Quality system is in the prevention of errors

3-Performance standard in quality is ''zero defects''

4-Quality measurement is the cost of non-conformities

2.2.4 The quality from technical point

Quality is a set of product characteristics that determines the suitability of the product to perform the desired function as expected by the consumer.

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Through which all parties can understand each other and resolve differences in the event of their outbreak.

2.3 Safety

Occupational safety and health is a very important science that aims to protect factory worker or death and also damage to the property of the establishment. This science is rooted in several standards and requirements that must be followed to maintain our safety and safety people around us. As is said safety for everyone here it is the responsibility of all and unit them to live in a safety and reassuring work environment.

Source: *(Charles, G. (2002),"The American Institute of Architects": Knowledge Communities)*

2.3.1 General safety steps

1. Conduct yourself in a responsible manner at all times in the laboratory.

2. Follow all written and verbal instructions carefully.

3. Never work alone in the laboratory. No student may work in the science classroom without the presence of the teacher.

4. When first entering a science room, do not touch any equipment, chemicals, or other materials in the laboratory area until you are instructed to do.

2.3.2 Definitions

Food safety

Concept that food will not cause harm to the consumer when it is prepared and/or eating according to its intended use (ISO22000:2005).

Food safety hazard

Biological, chemical, or physical agent in food, or condition of food, with the potential to cause an adverse health effect (ISO22000:2005).

Food chain

Sequence of the stages and operation involved in the production, processing, distribution, storage and handling of a food and its ingredients, from primary production to consumption (ISO22000:2005).

Food safety policy (overall)

Intending and direction of an organization related to Food safety as formally expressed by top management (ISO22000:2005).

Corrective Action

Action taken when a process deviates from the standard (ISO22000:2005).

Correction Action

To eliminate a detected non conformity (ISO 9000:2000, definition 3.6.6)

Critical Control Point (CCP)

(Food safety) step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level (ISO22000:2005).

HACCP: Hazard Analysis and Critical Control Point

"A systematic approach to the identification, evaluation, and control of food safety hazards" (FDA, 2009).

Hazard

"A biological, chemical, or physical agent that is reasonably likely to cause illness or injury in the absence of its control" (FDA, 2009).

Hazard Analysis

"The process of collection and evaluating information on hazards associated with the food under consideration to decide which are significant and must be addressed in the HACCP plan" (FDA, 2009).

Food Safety Management System (FSMS)

In a network of interrelated elements that combine to ensure that food does not cause adverse human health effects. These elements include programs, plans, policies, procedures, practices, processes, goals, objectives, methods, controls, roles, responsibilities, relationships, documents, records and resources (ISO22000:2005).

Good Manufacturing Practices (GMP)

Signifies those aspect of quality assurance which ensure that materials and articles are consistently produced and controlled to ensure conformity with the rules applicable to them as with the rules applicable to them as well as with the quality standards appropriate to their intended use by not endangering human health or risk, sub-contractor must protect its own employees as well as others who may be exposed to the risk (prim, 2005).

2.4 The concept of risk

The most important definitions:

1. The possibility of injury or loss of any software, information, equipment, everything is administrative, everything is material, communications, human resources or information within the system or a particular activity.

Source: (http://search.live.com/results.aspx?q=&scope=academic&form=BCAC)

2. A synthesis group of the possibility of an event and the consequences of that event.

Source: (http://www.clearnesta.com/management/typesrisks.asp)

3. Is any threat to the process of achieving the organization's objectives. It's the possibility of any negative impact of the phenomenon or future act.

Source: (http://www.upenn.edu/audit/oacp/audit/operational%20audit/operationalauditrik

4. Probability amount of loss or to achieve a return less than expected.

5. The possibility that what happens in the future may cause harm or loss.

The definitions above all based on the principle of Probability relative to happen and specifically relying on guesswork and quantification. Every day economic institution no matter how powerful working in an environment that includes a certain percentage of risk depends on the type and strength of economic activity and the economic efficiency of enterprise systems and effective management. Thus, the risk list and continuing as long as economic activity exists and there is no economic institution in isolation from it, especially in a globalized environment now.

This may require us to address the concept of risk analysis (Risk Analysis). By definition know where, "as the process risks that can be exposed to security system and determining the probability of this happening, the damage that can result in precautionary methods that may be reluctant to identify it.

This definition refers back to the effective management of it has to devise ways and means of effective and sensors for a permanent examination (Scanning) environment to determine those risks.

2.4.1 Types of Risk

1- Business Risks

They all risks associated with the market or the industry they operate an organization.

2- Market Risks

That risk that accompany all changes in market conditions, volatility prices, interest rates and exchange rates.

3- Credit Risks

The all risks associated with the potential for non-receipt of payments payable from the customers.

4- Operational Risks

The kind of risk that accompanies the rules of procedure failed due to mechanical problems (failure of the machines) or human error (failure in the allocation of resources).

5- Legal Risks

It is the risks associated with the possibility of the inability of the (ability) and other parties to fulfill contractual pledges.

2.4.2 Risk Management

Risk management is a central part of any strategy in the management of businesses. Risk management's focus on the diagnosis and treatment of risks that could face those institutions and aims to expand anticipated for all the economic activities of the enterprise value.

Source: (https://www.simplilearn.com/financial-risk-and-types-rar131-article)

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┌─────────────────────────────────────────┐
│     Strategic objectives of the institution│
└─────────────────────────────────────────┘

┌─────────────────────────────────────────┐
│            Risk Assessment               │
│          hazard identification           │
│            Description Risk              │
│              Guess risk                  │
└─────────────────────────────────────────┘

┌─────────────────────────────────────────┐
│            Risk Assessment               │
└─────────────────────────────────────────┘

┌─────────────────────────────────────────┐
│              Risk reports                │
│         Threats and Opportunities        │
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│             The decision                 │
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│            Risk treatment                │
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│        Additional reporting for risk     │
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┌─────────────────────────────────────────┐
│              Monitoring                  │
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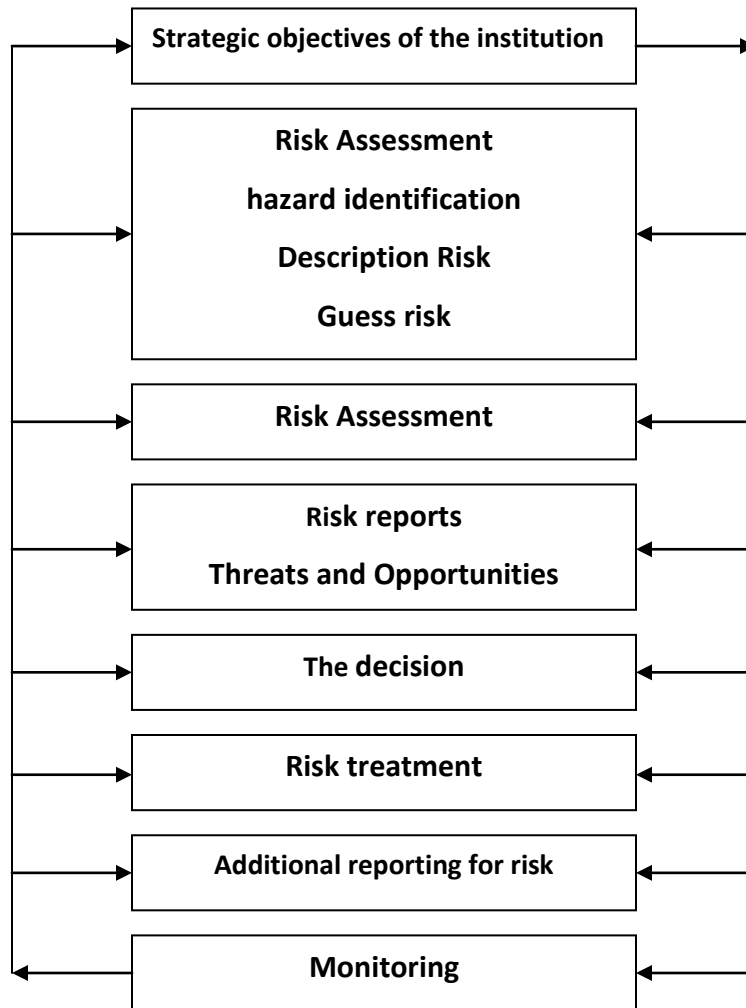
Figure (1): The process of risk management diagram

Source: https://ar.m.wikipedia.org/wiki/

2.4.3 Risk Assessment

The fundamental bases of the work of risk management in the business are the potential risks of a negative impact on the activities of the institution appreciated. Whenever risk management has been able to identify that risk accurately and quickly whenever two occasions succeeded in identifying effective methods to address these risks and reduce the negative effects on the activity of economic enterprises. Here we have to display some frequently in management literature available definitions for risk assessment and following the most important of these definitions:

* Risk Assessment "is the process of risks that can be exposed to security system and determine the probability of occurrence or occurrence that really impact and identify means to guard the additional safety that can curb this effect determining.

Source: (AIRMIC, AIARM, IRM. (2002). "A Risk Management Standard", Published, UK.)

*Risk Assessment "is a science based on the potential impact of risks on a specific rating system in light of the prevailing circumstances of the package within a certain time framework".

Source: (**Australian Government, Department of the Environment and Heritage, CANBERRA ACT 2601, Australia: (2003)**)

*British Standards No. (1999: 7799) Section (1) identification risk assessment as: "estimate or guess the impact of the threats that can be exposed to economic organizations and the possibility of the occurrence of the negative impact of these threats to information, facilities and information processing economic institutions"

Source: (**Simons. Robert; Executive Forum, forum executive forum.net, (2002)**)

* Risk Assessment "is a process that aims to reduce risk to an acceptable level. If access to a zero level of risk cannot be achieved".

Source : (**http://www.referenceforbusiness.com/management/pr-sa/risk-management.html**)

The definitions above indicate the importance of identifying potential threats and the accuracy of the estimate or predict the impact of these threats on the economic foundation the more risk management was efficient and effective in determining the source and type of threat and appreciate its negative effects on the institution a accurately whenever the percentage of damage from this threat light.

2.4.4 Risk Assessment Methodology

The risk assessment process is in accordance with the following:

1. threat rating and include the following:

- The definition of threat

- Identify threats site

- Weighted Probability of the occurrence of threat

2. Estimate the consequences and include the following:

3.Estimate the possibility of damage and include the following:

-Expected attack scenario

-Location characteristics

-Critical or sensitive assets (error tree analysis)

-Critical or sensitive assets (error tree)

-System efficiency

-Prevention strategy

-Acceptable risks (in the sense of the victim rather than the victim)

-Conduct classification and shock absorption

-Influence on capital and operational advantages

To quantify the risk equation, the researcher proposal the following risk equation Risk:

Probability of threat (PA)* Expected consequences of threat or risk (c)*(1-level of system efficiency of economic activity (PE)

The researcher has identified three levels of risk based on quantities results that can be obtained from this equation:

1- High Risk level: (Risk: 0.9)

2- Medium Risk level: (Risk: 0.5)

3- Low Risk Level (Risk: 0.1)

2.5 (SWOT) Analyses

(SWOT) analysis is an important tool used by strategic management to determine its direction and future strategic. Here we have to be exposed to the concept of strategy.

The process of examining the external environment permanently is necessary to identify the opportunities that can be exploited and the threats it will face. The tool that provides this is will face.

The tool that provides (SWOT) analysis

1-Is an analysis of the internal factors of strength and weakness, and the external factors of opportunities and environment threats.

2-(SWOT) analysis is useful tool for analyzing the overall situation of the organization based

Message is lost and life and the return of property

3-(SWOT) analysis this effective way to learn and understand your strength and weaknesses, and to consider the opportunities and threats you face.

4-It a situational analysis a basic view of the internal factors that affect the economic institution and the use of knowledge gained.

2.5.1 The (SWOT) analysis can be designed as follows

Strengths, weaknesses, opportunities and threats can be identified by answering a set of questions for each.

1-Strengths

It is determined by the following questions:

a) What are the advantages of the company?

b) What do you and do better than other?

c) What resources are unique or at the lowest cost available to the company?

d) What are the strengths of the company that people see in the market?

2-weaknesses

The following questions are identified:

a) What can the company improve?

b) What should the company avoid?

c) What are the weaknesses in the company that people see in the market?

3-opportunities

It is determined by the following questions:

a) Where are the best opportunities for the company?

b) What are the indicators of interest that the company identifies?

4- Threats

It is determined by the following questions:

a) What are the threats that the company directs?

b) What level of competition does the company face?

c) What are the required specifications for the company's work, the service, product you provide is changing?

d) Are technological changes treating the company's position?

e) Is the company suffering from debt or problems in financial flows?

f) Can any of the weaknesses seriously threaten the company's activity?

Source: By researcher

CHAPTER THREE

RESEARCH METHODOLOGY

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Methodology

The researcher adopted the theoretical framework of this study on the sources, references, and available sites with an explanation and critique of concepts and ideas whenever necessary.

As for the scientific side, the researcher adopted the method of analysis to draw conclusion, prove the hypothesis and formulate the necessary recommendation.

The study was conducted in a cake factory using a questionnaire, the researcher used five sections, the first topic, there is a statistically significant relationship between risk and assess the strengths.

The second topic, there is a statistically significant relationship between risk and vulnerabilities rating.

The third topic, there is a statistically significant relationship between the assessment of risk and opportunities.

The four topic, there is a statistically significant relationship between risk and threats.

The five topic (SOWT) analysis positive effect to reducing the risk

The researcher used three types of questionnaire to management, employees and laborers.

3.2 Methods

To achieve the objective of the study and verify hypotheses, the researcher used the following statistical methods:

1- Frequency distribution of the answers

2- Alpha equation to calculate the coefficient of reliability

3- Test the key box to indicate the differences between the answers

4- Median to test the validity of study axes

5- For accurate results the statistical program was used "SPSS" (Statistical Package for Social Science)

3.3 MOAWIA ELBERIER GROUP

Since the turn of the century Moawia Elberier Group has become a shining landmark in the Sudanese social, financial, and economic fields. With high standards of competence, integrity, and hard work, the first bearers of this name established themselves as one of the strongest pillars of the financial and business community in Sudan.

3.4 MOAWIA ELBERIER FACILITES

Bearing in mind this heritage , combined with the ever changing methods of local and international business , Moawia Elberier Group of companies was formed as a modern business enter price ,to operate in various industries .

To date our portfolio of more than 30 companies cover the industrial manufacturing , real estate , plastics , agricultural sectors , and much more.

3.5 The Sudanese and German Cake Factory

Sudanese factory established since 2008, production capacity is low, and then increased over time.

The production rate of carton one in day and then increased significantly after that, and from one production line to three production lines.

A product also varies from one product to more than 10 products.

3.6 Supply chain (Food chain)

A supply chain is a network between accompany and its suppliers to product, and distribute a specific product, and the supply chain represents the steps it takes to get the product or service to the customer.

A supply chain is a system of organization, people, activities, information and resources involved in moving a product or service from supplier to customer. A

supply chain is actually a complex and dynamic supply and demand network (Marcus: 2011).

HYGIENE → Raw Materials → Receipt Of raw material → Mixing → Mixer Homogenous

Mixer of cream ← cutter ← Brushes Cleaner ← Conveyor ← Oven 13m

Cream machine → Conveyor for Cutter → Drying → Cooling → Conveyor belt for packaging

Receipt ← Packing ← Slivan ← Heaters ← Nitrogen unit to mobilize

Storage → Transportation → Distribution
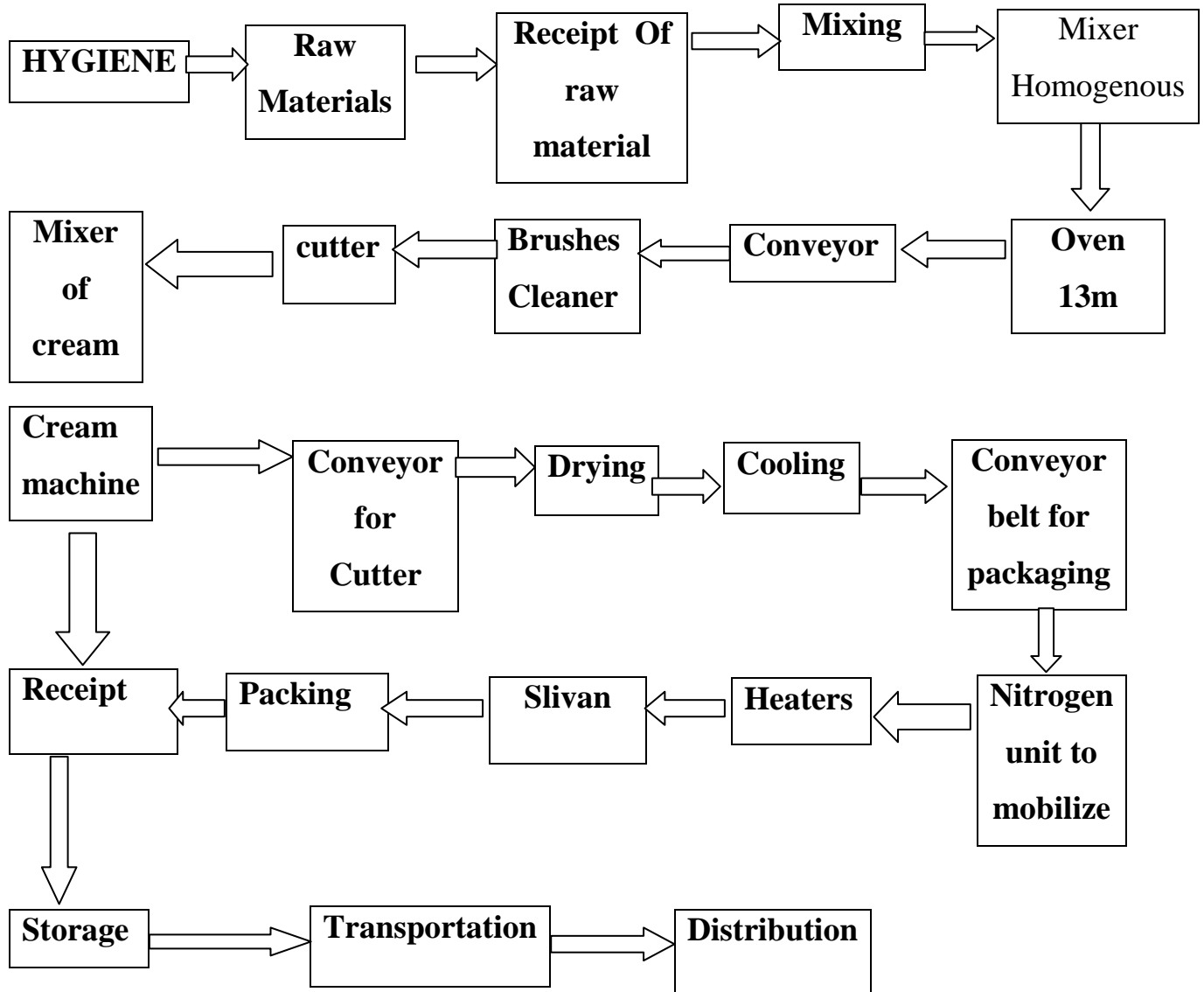
Figure (2): Supply Chain (Food Chain) of Cake Factory

Source: By researcher

3.6 (SWOT) Analyses

Table (3.1): HYGIENE

Strengths	Weaknesses
1-Protection products from chemical, neutral and microbe pollution 2- Protection products from chemical, neutral and physical contamination 3-Reduce the proliferation of bacteria in place to maintain a clean work environment 4-Kill bacteria pathogenic	1-The multiplication of bacteria 2-Food corruption 3-The existence of wounds and disease
Opportunities	**Threats**
1-Good impression to the customer 2-Attention to hand washing, clothes and wearing gloves to protect the product 3-Stay away from bad habits (eating and smoking)	1-Food damage 2-Akey reason for the return of the product from market

Source: By researcher

Table (3.2): Raw Materials

Strengths	Weaknesses
1-Increase production capacity 2-Availability of materials in factory	1-Fluctuation in prices 2-(Gross Domestic Product GDP) un improved
Opportunities	**Threats**
1-Different ways to find alternatives 2-The selection of good quality raw material 3-proper storage conditions	1-Foreeign credits 2-Stops import from outside the country

Source: By researcher

Table (3.3): Processing:

Strengths	Weaknesses
1-Available under the pressure of the control points and follow-up 2-Kaizen 3-Qualified labor	1-In breach of any provision of follow-up 2-Non-qualified labor 3-The lack of guide lines
Opportunities	**Threats**
1-Fllow-up 2-Instructions 3-The activities 4-Improvement and qualification	1-Lack of maintenance constantly machinery 2-Organizational problems and mismanagement

Source: By researcher

Table (3.4): Packing:

Strengths	Weaknesses
1-Keep the product safety 2-To give the product an attractive exterior to the consumer	1-Imported from outside the country 2-Import not good quality of slovan
Opportunities	**Threats**
1-Numerous attempts to cooperate With same companies 2-Continuity in production	1-Note to close the product tightly

Source: By researcher

Table (3.5): Storage

Strengths	Weaknesses
1-Keep the product safety before selling 2-One of the stations selling 3-It is dragging market	1-In appropriate in terms of cooling 2-Ventilation
Opportunities	**Threats**
1-Distribution 2-Lack of congestion in the store	1-Conformity with international standards 2-Follow-up after sales

Source: By researcher

Table (3.6): Transportation

Strengths	Weaknesses
1-Acompany cars matching the specification of the transport company 2-Mantining the product	1-The existence of the defect 2-Over crowding in a car
Opportunities	**Threats**
1-Other cars provide a help to facilitate transport	1-Lack of an going maintenance

Source: By researcher

Table (3.7): Distribution

Strengths	Weaknesses
1-The company has distribution customers to regions and sectors of specific policy 2-Distribution within individual neighborhoods, institutions and school 3-Direct selling market 4- Distribution is done by the company delegate	1-Method of distribution 2- Method of storage 3- Method of show
Opportunities	**Threats**
1- Awareness way for customers to distribution and conservation 2-Sales men skill	1-Poor storage

Source: By researcher

(SWOT) analysis: (Strengths, Weaknesses, Opportunities and threats):

Strengths

1- Profitable

2-Cash flow is profitable

3-Good material

4-Excellent reputation

5-Strong brand

Weaknesses

1- Imported from outside the country

2-Loss

3-High production cost

4- Non-qualified labor

5-Poor quality control

Opportunities

1-Distribution

2-Lack of congestion in the store

3-Numerous attempts to cooperate with same companies

4-Continuity in production

Threats

1-Conformity with international standards

2-Follow-up after sales

3- Poor storage

4- Lack of an going maintenance

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

To ensure that results are as varied as possible, the sample of the study varied to include:

1-Individuals of both sexes (Male &Female)

2- Individuals of different qualifications

3- Individuals of different years experience

To achieve the objective of the study and verify its hypotheses, the researcher used the following statistical methods:

1- Frequency distribution of responses

2- Alpha equation to calculate the coefficient of reliability

3- Test the key box to indicate the differences between the answers

4- Median to test the validity of study axes

5- For accurate results the statistical program was used "SPSS" (Statistical Package for Social Science)

Reliability and Validity

Reliability means that measures give the same results if used more than once under similar conditions.

Reliability is defined as the extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials.

Validity is defined as the extent to which the instrument measures what it purports to measure. And calculate in many ways represents the easiest being the square root of the reliability coefficient

$$\textbf{Validity} = \sqrt{\textbf{Reliability}}$$

Test Hypotheses

To answer the questions of the study and verification of hypotheses will be calculated median for each of the phrases in the questionnaire and which show views of individuals the study, which was given Grade (5) as a weight for each answer "Strongly agree", and grade (4) as a weight for each answer "agree" grade (3) as a weight for each answer "neutral", grade (2) as a weight for each answer, " disagree" and grade (1) as a weight for each answer "strongly Disagree ".To know Trends answer, by calculated median. And then it will use the Chi-square test to know the significance of differences in answers.

Figure (3) we note that the answer of most of the individuals study are (male) by (11) and with (68.8%) while the total number is (female) by (5) and with (31.2%). Figure (5) we note that the experience of most of the individuals study are (>10 year) by (11) and with (68.8%).

4.1 Statistical Analysis of Managers

4.1.1 Gender
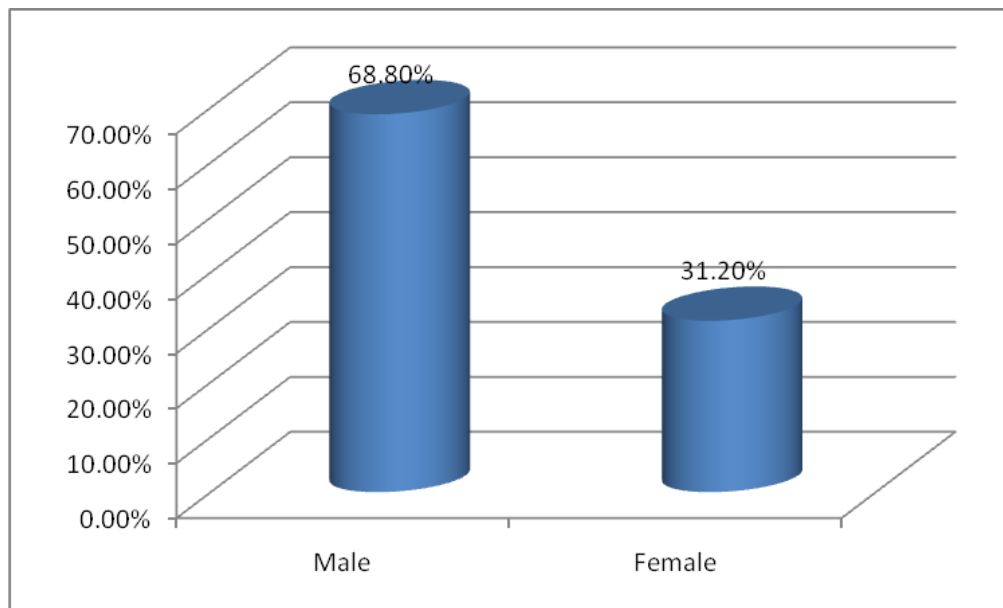
Figure (3): Gender

Figure (3) we note that the answer of most of the individuals study are (male) by (11) and with (68.8%) while the total number is (female) by (5) and with (31.2%).

Figure (5) we note that the experience of most of the individuals study are (>10 year) by (11) and with (68.8%).

Researcher calculates the reliability coefficient of the scale used in the questionnaire by alpha equation and the results as follows:

4.1.2 Qualified scientific
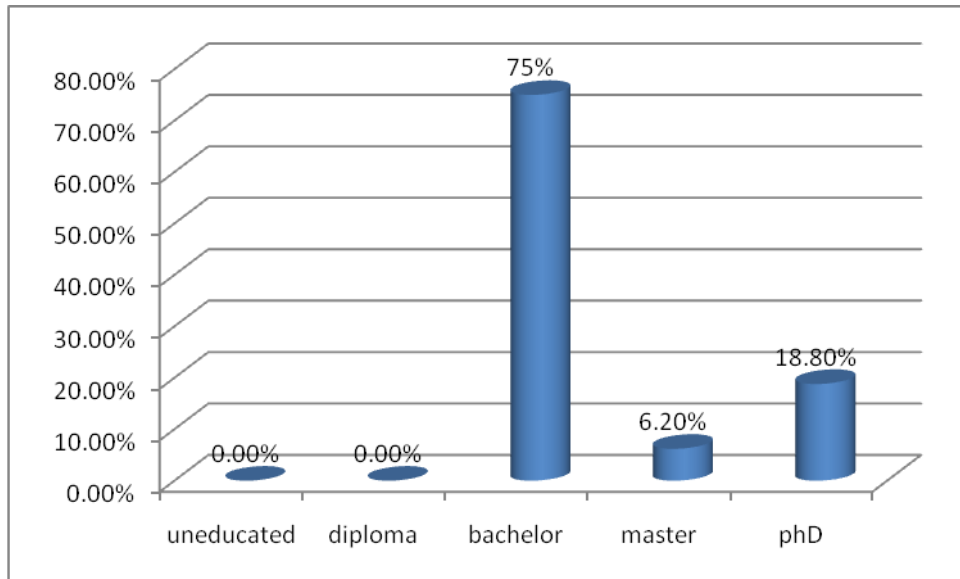
Figure (4): Qualified scientific

Figure (4) we note that the answer of most of the individuals study are (bachelor) by (12) and with (75%).

Reliability and Validity

Table (4.1): Reliability and Validity

Questionnaire	
Reliability coefficient	**Validity coefficient**
0.74	0.86

4.1.3 Experience
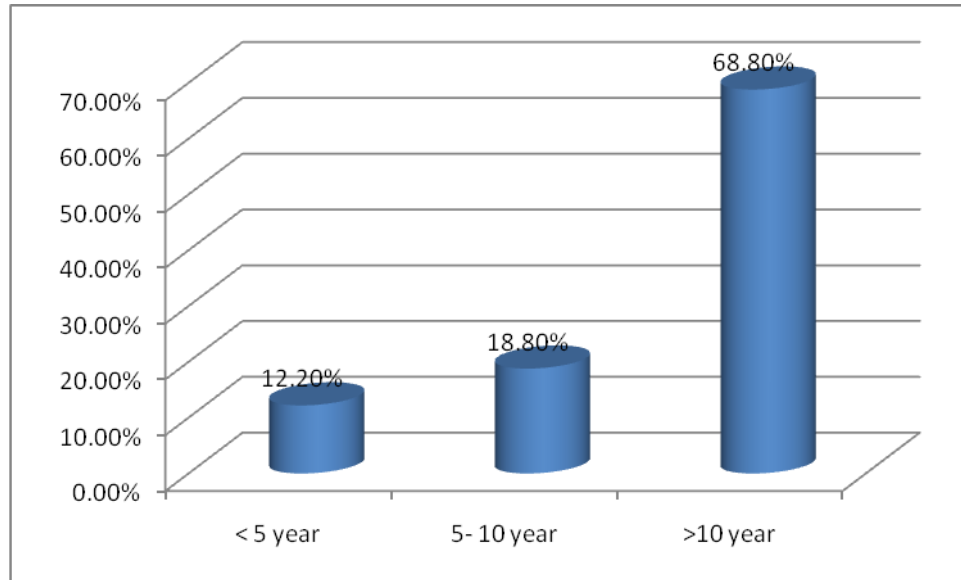
Figure (5): Experience

Table (4.1) that all reliability and validity coefficients for questionnaire is greater than (50%) and close to the one, this indicates that the questionnaire is characterized by high reliability and validity, and makes statistical analysis acceptable.

 Test Hypotheses

1- First hypotheses for study " There is a statistically significant relationship between risk and strengths points "

- **Discussion of the first hypothesis**

Table (4.2): Frequency distribution of the first hypothesis phrases Answers:

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	neutral	Disagree	Strongly disagree
1	We have market share	5 %31.2	9 %56.2	2 %12.5	0 %0.0	0 %0.0
2	Display product in a good way	4 %25	10 %62.5	1 %6.2	0 %0.0	1 %6.2
3	Products vary in the company	9 %56.2	7 %43.8	0 %0.0	0 %0.0	0 %0.0
4	The Company provides means of safety for all employees	5 %31.2	8 %50	0 %0.0	0 %0.0	3 %18.8
5	The relationship between employees and the companies good	9 %56.2	7 %43.8	0 %0.0	0 %0.0	0 %0.0

Table (4.3): Chi-square test results:

No.	Phrases	Chi-square value	P-value	Median	Trend
1	We have market share	4.625	0.099	4	Agree
2	Display product in a good way	13.500	0.004	4	Agree
3	Products vary in the company	0.250	0.617	5	strongly agree
4	The Company provides means of safety for all employees	2.375	0.305	4	Agree
5	The relationship between employees and the companies good	0.250	0.617	5	strongly agree
	Hypothesis	56.500	0.000	4	agree

- The value of chi-square for the first phrase is (4.625) with (p-value=0.099 >0.05), and depending on the table (4-5), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

[27]

- The value of chi-square for the second phrase is (13.500) with (p-value=0.004 < 0.05), and depending on the table (4-5), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

- The value of chi-square for the third phrase is (0.250) with (p-value=0.0617 > 0.05), and depending on the table (4-5), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the fourth phrase is (2.375) with (p-value=0.305 > 0.05), and depending on the table (4-5), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the fifth phrase is (0.250) with (p-value=0.0617 >0.05), and depending on the table (4-5), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the first hypothesis (56.500), with (p-value =0.000 < 0.05) and depending on the table (4-5) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

2- Second hypotheses for study:" There is a statistically significant relationship between risk and weakness points"

- **Discussion of the second hypothesis**

- The value of chi-square for the first phrase is (9.000) with (p-value=0.029 <0.05), and depending on the table (4-4), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

- The value of chi-square for the second phrase is (6.500) with (p-value=0.090 > 0.05), and depending on the table (4-4), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

Table (4.4): Frequency distribution of the second hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	neutral	Disagree	Strongly disagree
1	The large number competition from other companies on the same products	7 %43.8	7 %43.8	1 %6.2	0 %0.0	1 %6.2
2	Import-like products for our products	7 %43.8	6 %37.5	0 %0.0	2 %12.5	1 %6.2
3	Non-presidents agreement in decisions	5 %31.2	4 %25	1 %6.2	4 %25	2 %12.5
4	Production costs are high	11 %68.8	2 %12.5	1 %6.2	0 %0.0	2 %12.5
5	Products are suffering from lower sales	6 %37.5	5 %31.2	0 %0.0	4 %25	1 %6.2
6	High taxes	10 %62.5	4 %25	0 %0.0	1 %6.2	1 %6.2
7	Fear of risk	5 %31.2	9 %65.2	2 %12.5	0 %0.0	0 %0.0

Table (4.5): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	The large number competition from other companies on the same products	9.000	0.029	4	agree
2	Import-like products for our products	6.500	0.090	4	agree
3	Non-presidents agreement in decisions	3.375	0.497	4	agree
4	Production costs are high	16.500	0.001	5	Strongly agree
5	Products are suffering from lower sales	3.500	0.321	4	agree
6	High taxes	13.500	0.004	5	Strongly agree
7	Fear of risk	4.625	0.009	4	agree
	Hypothesis	74.964	0.000	4	agree

- The value of chi-square for the third phrase is (3.375) with (p-value=0.0497 > 0.05), and depending on the table (4-4), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the fourth phrase is (16.500) with (p-value=0.001 < 0.05), and depending on the table (4-4), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

[30]

- The value of chi-square for the fifth phrase is (3.500) with (p-value=0.321 <0.05), and depending on the table (4-4), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the sixth phrase is (13.500) with (p-value=0.004 <0.05), and depending on the table (4-4), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of Strongly agree

- The value of chi-square for the seven phrase is (4.625) with (p-value=0.009 <0.05), and depending on the table (4-4), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree. The value of chi-square for all phrases in the second hypothesis (74.964), with (p-value =0.000 < 0.05) and depending on the table (4-4) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

3- Third hypothesis of the study: "There is a statistically significant relationship between risk and opportunity"

- **Discussion of the third hypothesis**

  - The value of chi-square for the first phrase is (6.500) with (p-value=0.039 <0.05), and depending on the table (4-6), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

  - The value of chi-square for the second phrase is (2.125) with (p-value=0.0713 > 0.05), and depending on the table (4-6), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

  - The value of chi-square for the third phrase is (1.00) with (p-value=0.317> 0.05), and depending on the table (4-6), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

Table (4.6): Frequency distribution of the third hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	neutral	Disagree	Strongly disagree
1	Dollar's decline	10 %62.5	4 %25	0 %0.0	0 %0.0	2 %12.5
2	The raw material manufacturing in the factory	3 %18.8	5 %31.2	2 %12.5	4 %25	2 %12.5
3	Increase the diversity of goods and services	6 %37.5	10 %62.5	0 %0.0	0 %0.0	0 %0.0
4	The presence of a high efficiency of workers	6 %37.5	8 %50	0 %0.0	0 %0.0	2 %12.5
5	The Company provides a comfortable atmosphere to work	7 %43	2 %12.5	0 %0.0	4 %25	3 %18.8
6	The target market in witnessing an increase in products demand	5 %31.2	9 %56.2	1 %6.2	0 %0.0	1 %6.2

Table (4.7): Chi-square test results:

No.	Phrases	Chi-square value	P-value	Median	Trend
1	Dollar's decline	6.500	0.039	5	Strongly agree
2	The raw material manufacturing in the factory	2.125	0.713	4	agree
3	Increase the diversity of goods and services	1.00	0.317	4	agree
4	The presence of a high efficiency of workers	3.500	0.174	4	agree
5	The Company provides a comfortable atmosphere to work	3.500	0.321	4	agree
6	The target market in witnessing an increase in products demand	11.00	0.012	4	agree
	Hypothesis	59.521	0.000	4	agree

- The value of chi-square for the fourth phrase is (3.500) with (p-value=0.0174 < 0.05), and depending on the table (4-6), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the fifth phrase is (3.500) with (p-value=0.321>0.05), and depending on the table (4-6), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the sixth phrase is (11.00) with (p-value=0.012<0.05), and depending on the table (4-6), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the third hypothesis (59.521), with (p-value =0.000 < 0.05) and depending on the table (4-6) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

4- Forth hypothesis of the study: "There is a statistically significant relationship between risk and threats"

- **Discussion of the forth hypothesis**
- The value of chi-square for the first phrase is (12.875) with (p-value=0.002<0.05), and depending on the table (4-8), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the second phrase is (12.00) with (p-value=0.007<0.05), and depending on the table (4-8), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

Table (4.8): Frequency distribution of the forth hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	neutral	Disagree	Strongly disagree
1	Current fluctuations in the market	12	3	0	0	1
		%75	%12.8	%0.0	%0.0	%6.2
2	Storage for a long time	10	2	0	2	2
		%62.5	%12.5	%0.0	%12.5	%12.5
3	An increase in the damaged	8	4	0	4	0
		%50	%25	%0.0	%25	%0.0
4	Back to the product from the market	8	5	0	0	3
		%50	%31.2	%0.0	%0.0	%18.8
5	The existence of strong competition between food companies	11	5	0	0	0
		%68.8	%31.2	%0.0	%0.0	%0.0
6	Un willingness of staff to buy	3	5	1	4	3
		%18.8	%31.2	%6.2	%25	%18.8

Table (4.9): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	Current fluctuations in the market	12.875	0.002	5	Strongly agree
2	Storage for a long time	12.00	0.007	5	Strongly agree
3	An increase in the damaged	2.00	0.368	5	Strongly agree
4	Back to the product from the market	2.375	0.305	5	Strongly agree
5	The existence of strong competition between food companies	2.250	0.134	5	Strongly agree
6	Un willingness of staff to buy	2.750	0.600	4	agree
	Hypothesis	84.312	0.000	5	Strongly agree

- The value of chi-square for the third phrase is (2.00) with (p-value=0.368> 0.05), and depending on the table (4-8), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the fourth phrase is (2.375) with (p-value=0.305>0.05), and depending on the table (4-8), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the fifth phrase is (2.250) with (p-value=0.134>0.05), and depending on the table (4-8), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the sixth phrase is (2.750) with (p-value=0.600<0.05), and depending on the table (4-8), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

The value of chi-square for all phrases in the third hypothesis (84.312), with (p-value =0.000 < 0.05) and depending on the table (4-8) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

5- Five hypothesis of the study: "'SWOT' analysis for positive impact to reducing the risk"

- **Discussion the five hypothesis**

Table (4.10): Frequency distribution of the hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	agree	Neutral	Disagree	Strongly disagree
1	The administration continued evaluation of corporate competition	7 %43.8	5 %31.2	1 %6.2	1 %6.2	2 %12.5
2	The administration continued follow-up of the development of technology	7 %43.8	6 %37.5	1 %6.2	0 %0.0	2 %12.5
3	The actual perception of the risks that could effect	11 %68.8	3 %18.8	2 %12.5	0 %0.0	0 %0.0
4	Make sure there are no obstacles in the future	10 %62.5	6 %37.5	0 %0.0	0 %0.0	0 %0.0

Table (4.11): Chi-square test results:

No.	Phrases	Chi-square value	P-value	Median	Trend
1	The administration continued evaluation of corporate competition	9.00	0.061	4	Agree
2	The administration continued follow-up of the development of technology	6.500	0.09	4	Agree
3	The actual perception of the risks that could effect	9.125	0.01	5	strongly agree
4	Make sure there are no obstacles in the future	1.00	0.317	5	strongly agree
	Hypothesis	62.531	0.000	5	strongly agree

- The value of chi-square for the first phrase is (9.00) with (p-value=0.061>0.05), and depending on the table (4-10), this indicates that there

is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the second phrase is (6.500) with (p-value=0.09< 0.05), and depending on the table (4-10), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the third phrase is (9.125) with (p-value=0.01< 0.05), and depending on the table (4-10), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the fourth phrase is (1.00) with (p-value=0.317< 0.05), and depending on the table (4-10), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the hypothesis (62.531), with (p-value =0.000 < 0.05) and depending on the table (4-10) this indicates this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

Figure (6) we note that the answer of most of the individuals study are (male) by (18) and with (69.2%) while the total number is (female) by (8) and with (30.8%).

Figure (7) we note that the answer of most of the individuals study are (diploma) by (14) and with (53.8%).

Figure (8) we note that the experience of most of the individuals study are (< 5 year) by (13) and with (50%).

4.2 Statistical analysis of Employees

4.2.1 Gender
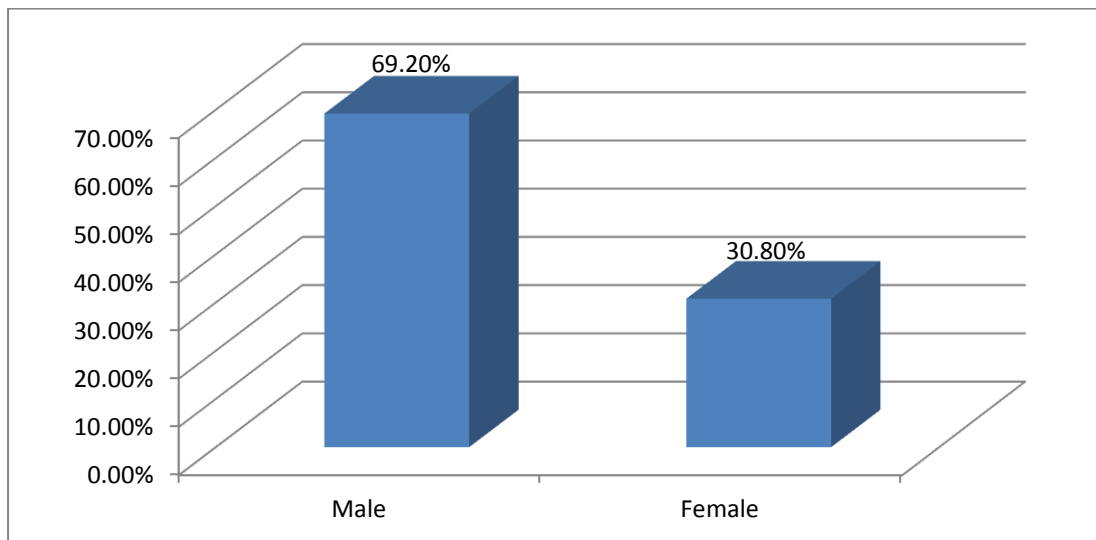
Figure (6): Gender

4.2.2 Qualified Scientific
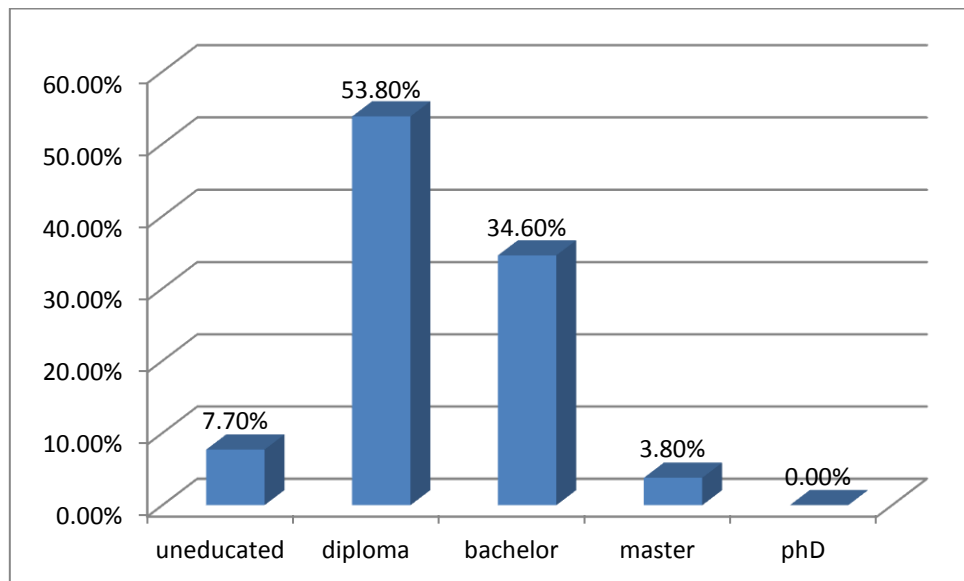
Figure (7): Qualified Scientific

4.2.3 Experience
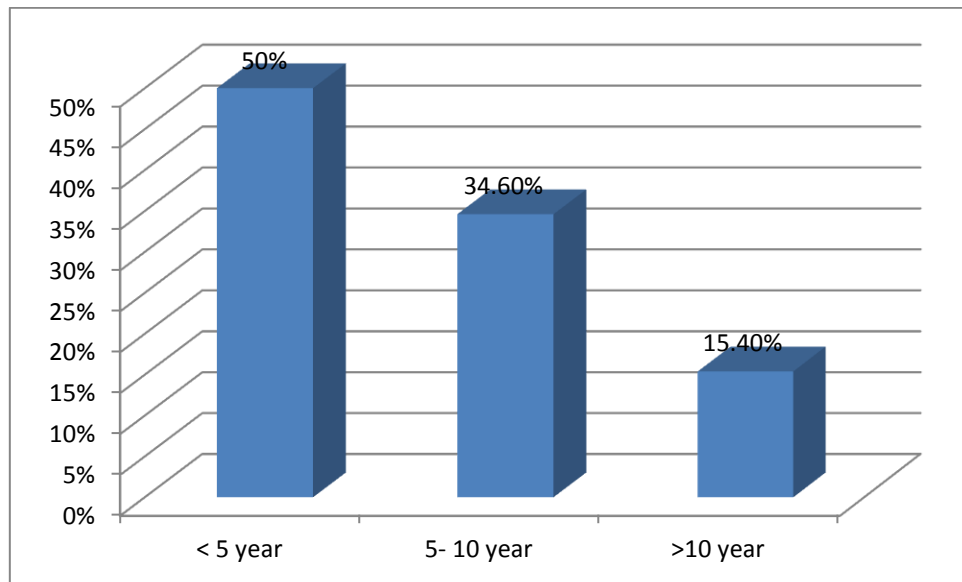
Figure (8): Experience

Reliability and Validity

Table (4.12): Reliability and Validity:

Questionnaire	
Reliability coefficient	**Validity coefficient**
0.62	0.79

Table (4-12) that all reliability and validity coefficients for questionnaire is greater than (50%) and close to the one, this indicates that the questionnaire is characterized by high reliability and validity, and makes statistical analysis acceptable.

Test Hypotheses

1- First hypotheses for study: " There is a statistically significant relationship between risk and strengths points "

- **Discussion of the first hypothesis**

Table (4.13): Frequency distribution of the first hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Achievements director more than expected	7 %26.9	10 %38.5	4 %15.4	3 %11.5	2 %7.7
2	The director clear vision for the future	8 %30.8	11 %42.3	3 %11.5	0 %0.0	4 %15.4
3	Director great ability to deal with staff	10 %38.5	11 %42.3	2 %7.7	0 %0.0	3 %11.5
4	Owning a number of experts in your team	12 %46.2	11 %42.3	2 %7.7	0 %0.0	1 %3.8

Table (4.14): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	Achievements director more than expected	8.231	0.083	4	Agree
2	The director clear vision for the future	6.308	0.098	4	Agree
3	Director great ability to deal with staff	10.000	0.019	4	Agree
4	Owning a number of experts in your team	15.538	0.001	4	Agree
	Hypothesis	52.348	0.000	4	Agree

- The value of chi-square for the first phrase is (8.231) with (p-value=0.083>0.05), and depending on the table (4-13), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the second phrase is (6.308) with (p-value=0.098>0.05), and depending on the table (4-13), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the third phrase is (10.000) with (p-value=0.019<0.05), and depending on the table (4-13), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

- The value of chi-square for the fourth phrase is (15.538) with (p-value=0.001<0.05), and depending on the table (4-13), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

The value of chi-square for all phrases in the first hypothesis (52.348), with (p-value =0.000 < 0.05) and depending on the table (4-13) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

2- Second hypothesis of the study:" There is a statistically significant relationship between risk and weakness points"

- The value of chi-square for the first phrase is (31.308) with (p-value=0.000<0.05), and depending on the table (4-15), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

- The value of chi-square for the second phrase is (5.154) with (p-value=0.272>0.05), and depending on the table (4-15), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

Table (4.15): Frequency distribution of the second hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Director listens to complaints that offer to him	6 %23.1	16 %61.5	1 %3.8	2 %7.7	1 %3.8
2	Director does not feel importance of workers	5 %19.2	6 %23.1	2 %7.7	9 %34.6	4 %15.4
3	The lack of qualified staff or trainers	5 %19.2	7 %26.9	0 %0.0	7 %26.9	7 %26.9
4	Products are suffering from a decline in quality	4 %15.4	6 %23.1	0 %0.0	10 %38.5	6 %23.1

Table (4.16): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	Director listens to complaints that offer to him	31.308	0.000	4	Agree
2	Director does not feel importance of workers	5.154	0.272	3	Neutral
3	The lack of qualified staff or trainers	0.462	0.927	2	Disagree
4	Products are suffering from a decline in quality	2.923	0.404	2	Disagree
	Hypothesis	27.827	0.000	4	Agree

- The value of chi-square for the third phrase is (0.462) with (p-value=0.927>0.05), and depending on the table (4-15), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the fourth phrase is (2.923) with (p-value=0.404> 0.05), and depending on the table (4-15), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

The value of chi-square for all phrases in the second hypothesis (27.827), with (p-value =0.000 < 0.05) and depending on the table (4-15) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

3- Third hypothesis of the study:" There is a statistically significant relationship between risk and opportunity"

- **Discussion of the third hypothesis**
- The value of chi-square for the first phrase is (10.692) with (p-value=0.005<0.05), and depending on the table (4-17), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the second phrase is (21.385) with (p-value=0.000<0.05), and depending on the table (4-17), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

- The value of chi-square for the third phrase is (11.385) with (p-value=0.003<0.05), and depending on the table (4-17), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly disagree.

Table (4.17): Frequency distribution of the third hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Production of new goods	14 %53.8	11 %42.3	0 %0.0	0 %0.0	1 %3.8
2	Expansion in the current market	9 %34.6	15 %57.7	1 %3.8	0 %0.0	1 %3.8
3	Increase the diversity of good s	16 %61.5	8 %30.8	0 %0.0	0 %0.0	2 %7.7
4	The presence of a small number of competitors	3 %11.5	8 %30.8	2 %7.7	0 %0.0	13 %50

Table (4.18): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	Production of new goods	10.692	0.005	5	Strongly disagree
2	Expansions in the current market	21.385	0.000	4	Agree
3	Increase the diversity of good s	11.385	0.003	5	Strongly disagree
4	The presence of a small number of competitors	11.846	0.008	3	Neutral
	Hypothesis	42.154	0.000	4	Agree

- The value of chi-square for the fourth phrase is (11.846) with (p-value=0.008< 0.05), and depending on the table (4-17), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of neutral.

The value of chi-square for all phrases in the third hypothesis (42.154), with (p-value =0.000 < 0.05) and depending on the table (4-17) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

4- Forth hypothesis of the study:" There is a statistically significant relationship between risk and threats"

- **Discussion of the forth hypothesis**

Table (4.19): Frequency distribution of the forth hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The environment is not good to work	4 %15.4	6 %23.1	0 %0.0	12 %46.2	4 %15.4
2	Don't recognize the lead of Occupational Health and Safety Department	6 %23.1	6 %23.1	1 %3.8	12 %46.2	1 %3.8
3	Psychological factors affecting in the work environment in the work environment	11 %42.3	12 %46.2	0 %0.0	0 %0.0	3 %11.5
4	Office design and workplace uncomfortable	5 %19.2	7 %26.9	0 %0.0	10 %38.5	4 %15.4

Table (4.20): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	The environment is not good to work	6.615	0.085	2	Disagree
2	Don't recognize the lead of Occupational Health and Safety Department	15.923	0.003	3	Neutral
3	Psychological factors affecting in the work environment in the work environment	5.615	0.06	4	Agree
4	Office design and workplace uncomfortable	3.231	0.357	2	Disagree
	Hypothesis	44.462	0.000	4	Agree

- The value of chi-square for the first phrase is (6.615) with (p-value=0.085>0.05), and depending on the table (4-19), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the second phrase is (15.923) with (p-value=0.003<0.05), and depending on the table (4-19), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of neutral.

- The value of chi-square for the third phrase is (5.615) with (p-value=0.06<0.05), and depending on the table (4-19), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

- The value of chi-square for the fourth phrase is (3.231) with (p-value=0.357>0.05), and depending on the table (4-19), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for all phrases in the fourth hypothesis (44.462), with (p-value =0.000 < 0.05) and depending on the table (4-19) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

5- Five hypothesis of the study:" 'SWOT' analysis for positive impact to reducing the risk"

- **Discussion the five hypothesis**

- The value of chi-square for the first phrase is (7.538) with (p-value=0.0570>0.05), and depending on the table (4-21), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the second phrase is (5.154) with (p-value=0.272 > 0.05), and depending on the table (4-21), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the third phrase is (18.615) with (p-value=0.001 < 0.05), and depending on the table (4-21), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

Table (4.21): Frequency distribution of the hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	agree	Neutral	Disagree	Strongly disagree
1	Constant stimulation for workers	10 %38.5	9 %34.6	0 %0.0	6 %23.1	1 %3.8
2	Provide training sessions on an ongoing basis	8 %30.8	4 %15.4	3 %11.5	8 %30.8	3 %11.5
3	A positive relationship between the (SWOT) and other quality systems	13 %50	7 %26.9	2 %7.7	3 %11.5	1 %3.8

Table (4.22): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	Constant stimulation for workers	7.538	0.0570	4	Agree
2	Provide training sessions on an ongoing basis	5.154	0.272	3	Neutral
3	A positive relationship between the (SWOT) and other quality systems	18.615	0.001	5	strongly agree
	Hypothesis	30.974	0.000	4	Agree

The value of chi-square for all phrases in the hypothesis (30.974), with (p-value =0.000 < 0.05) and depending on the table (4-21) this indicates this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

4.3 Statistical analysis of Laborers

4.3.1 Gender
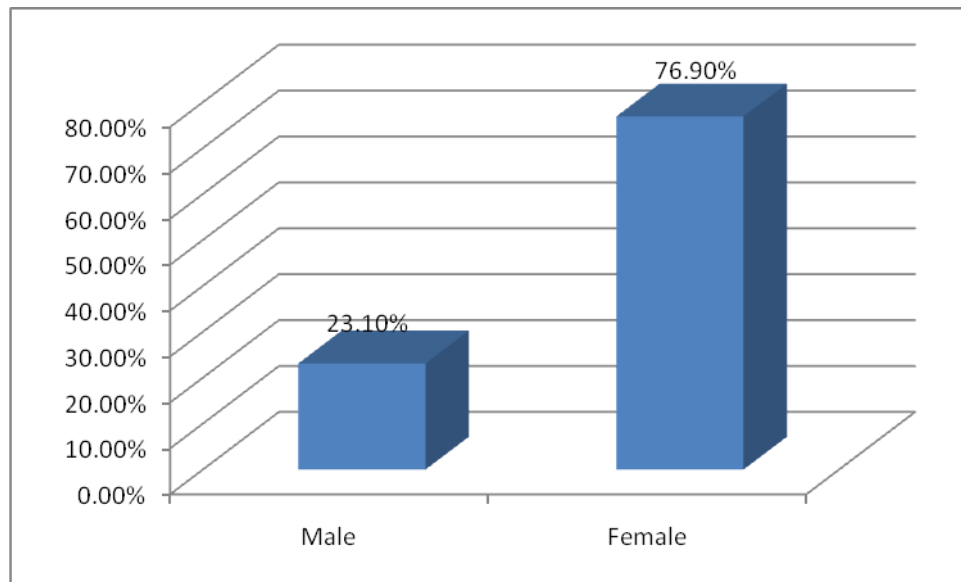
Figure (9): Gender

Figure (9) we note that the answer of most of the individuals study are (female) by (20) and with (76.9%) while the total number is (male) by (6) and with (23.1%)

Figure (10) we note that the qualified scientific of most of the individuals study are (diploma) by (21) and with (80.8%).

4-3.2 Qualified Scientific
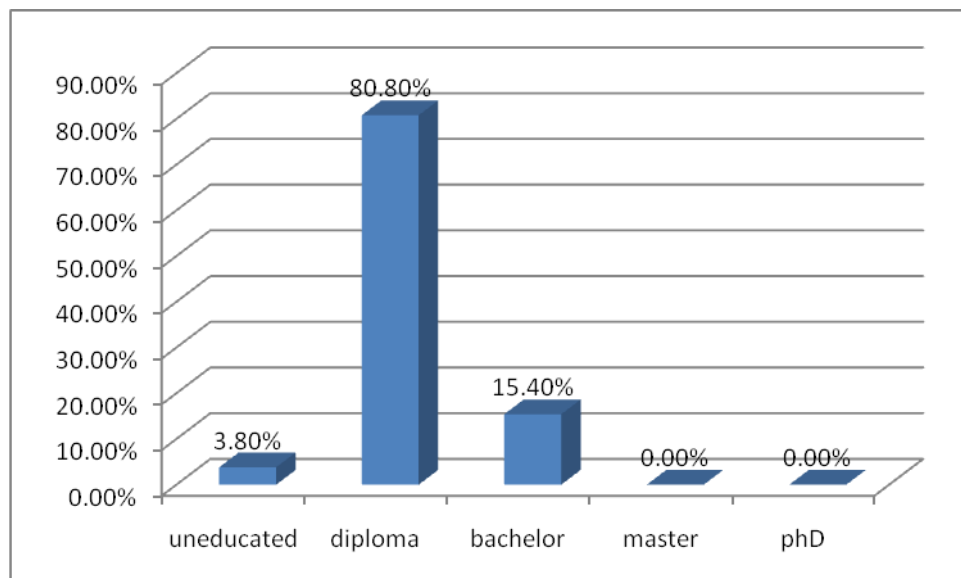
Figure (10): Qualified Scientific

Reliability and Validity

Table (4.23): Reliability and Validity

Questionnaire	
Reliability coefficient	**Validity coefficient**
0.745	0.86

4-3.3 Experience
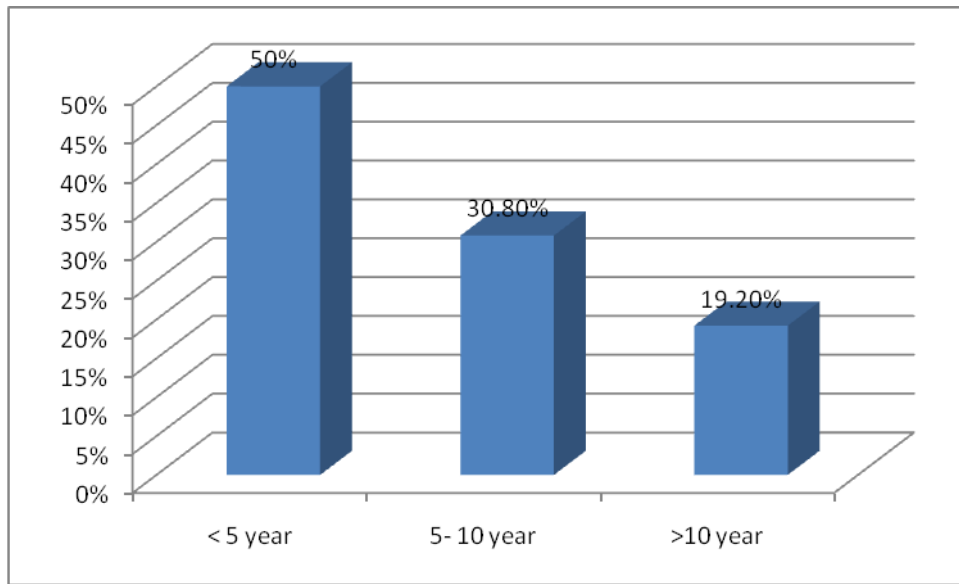
Figure (11): Experience

Figure (11) we note that the experience of most of the individuals study are (< 5 year) by (13) and with (50%).

Notes from the results table(4.23) that all reliability and validity coefficients for questionnaire is greater than (50%) and close to the one, this indicates that the questionnaire is characterized by high reliability and validity, and makes statistical analysis acceptable.

Test Hypotheses

1- First hypotheses for study:" " There is a statistically significant relationship between risk and strengths points "

- **Discussion of the first hypothesis**

Table (4.24): Frequency distribution of the first hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	There is a continuous and effective training	14 %53.8	3 %11.5	0 %0.0	8 %30.8	1 %3.8
2	Stimulation and its impact on improving labor	15 %57.7	8 %30.8	0 %0.0	1 %3.8	2 %7.7
3	Maintenance workplace constantly	16 %61.5	8 %30.8	0 %0.0	2 %7.7	0 %0.0
4	The existence of tools and personal protective	20 %76.9	6 %76.9	0 %0.0	0 %0.0	0 %0.0
5	The existence of tools and personal protective	19 %73.1	6 %23.1	0 %0.0	1 %3.8	0 %0.0

Table (4.25): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	There is a continuous and effective training	15.538	0.001	5	strongly agree
2	Stimulation and its impact on improving labor	19.23	0.000	5	strongly agree
3	Maintenance workplace constantly	11.38	0.003	5	strongly agree
4	The existence of tools and personal protective	7.538	0.006	5	strongly agree
5	The existence of tools and personal protective	8.291	0.000	5	strongly agree
	Hypothesis	121.358	0.0000	5	strongly agree

- The value of chi-square for the first phrase is (15.538) with (p-value=0.00 1< 0.05), and depending on the table (4-24), this indicates that there is significant

differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the second phrase is (19.23) with (p-value=0.000 < 0.05), and depending on the table (4-24), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the third phrase is (11.38) with (p-value=0.00 3< 0.05), and depending on the table (4-24), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the fourth phrase is (7.538) with (p-value=0.00 6< 0.05), and depending on the table (4-24), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the fifth phrase is (8.291) with (p-value=0.000 < 0.05), and depending on the table (4-24), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the first hypothesis (121.358), with (p-value =0.000 < 0.05) and depending on the table (4-24) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

2- Second hypothesis of the study:" There is a statistically significant relationship between risk and weakness points"

- **Discussion of the second hypothesis**

Table (4.26): Frequency distribution of the second hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The work environment is not suitable	4 %15.4	10 %38.5	3 %11.5	8 %30.8	1 %3.8
2	The number of working hours is unsafe	7 %26.9	14 %53.8	0 %0.0	3 %11.5	2 %7.7
3	The large number of injury and accident rates	3 %11.5	5 %19.2	3 %11.5	11 %42.3	4 %15.4
4	Salaries are inadequate, causing the worker to leave for work	14 %53.8	7 %26.9	1 %3.8	3 %11.5	1 %3.8

Table (4.27): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	The work environment is not suitable	19.923	0.032	4	Agree
2	The number of working hours is unsafe	10.53	0.003	4	Agree
3	The large number of injury and accident rates	13.692	0.071	2	Disagree
4	Salaries are inadequate, causing the worker to leave for work	8.61	0.000	5	Strongly agree
	Hypothesis	31.481	0.000	4	agree

- The value of chi-square for the first phrase is (19.923) with (p-value=0.032 < 0.05), and depending on the table (4-26), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

- The value of chi-square for the second phrase is (10.53) with (p-value=0.003 < 0.05), and depending on the table (4-26), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

- The value of chi-square for the third phrase is (13.692) with (p-value=0.071 > 0.05), and depending on the table (4-26), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the fourth phrase is (8.61) with (p-value=0.000 < 0.05), and depending on the table (4-26), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the second hypothesis (31.481), with (p-value =0.000 < 0.05) and depending on the table (4-26) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

3- Third hypothesis of the study:" There is a statistically significant relationship between risk and opportunity"

- **Discussion of the third hypothesis**

Table (4.28): Frequency distribution of the second hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Address the management of risks related to the work environment	19 %73.1	5 %19.2	1 %3.8	1 %3.8	0 %0.0
2	Management oversight to make sure to wear protective equipment	20 %76.9	5 %19.2	0 %0.0	1 %3.8	0 %0.0
3	There are no barriers between departments and workers	19 %73.1	5 %19.2	1 %3.8	1 %3.8	0 %0.0
4	Types of occupational safety guidelines available to the work place	20 %76.9	5 %19.2	0 %0.0	1 %3.8	0 %0.0

Table (4.29): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	Address the management of risks related to the work environment	23.231	0.000	5	Strongly agree
2	Management oversight to make sure to wear protective equipment	33.692	0.000	5	Strongly agree
3	There are no barriers between departments and workers	23.154	0.000	5	Strongly agree
4	Types of occupational safety guidelines available to the work place	33.692	0.000	5	Strongly agree
	Hypothesis	146.154	0.000	5	Strongly agree

- The value of chi-square for the first phrase is (23.231) with (p-value=0.000 < 0.05), and depending on the table (4-28), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the second phrase is (33.692) with (p-value=0.000 < 0.05), and depending on the table (4-28), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the third phrase is (23.154) with (p-value=0.000 < 0.05), and depending on the table (4-28), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the fourth phrase is (33.692) with (p-value=0.000 < 0.05), and depending on the table (4-28), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the third hypothesis (146.154), with (p-value =0.000 < 0.05) and depending on the table (4-28) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

4- Forth hypothesis of the study:" There is a statistically significant relationship between risk and threats"

- **Discussion of the forth hypothesis**

- The value of chi-square for the first phrase is (23.154) with (p-value=0.032 < 0.05), and depending on the table (4-30), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

Table (4.30): Frequency distribution of the second hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Exposure to excessive heat	6 %23.1	10 %38.5	1 %3.8	7 %26.9	2 %7.7
2	Exposure to moisture or excess cold	1 %3.8	2 %7.7	2 %7.7	20 %76.9	1 %3.8
3	Lighting in appropriate	5 %19.2	4 %15.4	0 %0.0	15 %57.7	2 %7.7
4	Carry many burdens	4 %15.4	9 %34.6	0 %0.0	12 %46.2	1 %3.8
5	Big noise levels	6 %23.1	8 %30.8	1 %3.8	11 %42.3	0 %0.0
6	Injury, leading to the loss of employment	2 %7.7	3 %11.5	1 %3.8	17 %65.4	3 %11.5

Table (4.31): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	Exposure to excessive heat	23.154	0.032	4	Agree
2	Exposure to moisture or excess cold	10.538	0.000	2	Disagree
3	Lighting in appropriate	52.846	0.001	2	Disagree
4	Carry many burdens	15.538	0.011	3	Neutral
5	Big noise levels	11.231	0.043	4	Agree
6	Injury, leading to the loss of employment	8.154	0.000	2	Disagree
	Hypothesis	122.910	0.000	2	Disagree

- The value of chi-square for the second phrase is (10.538) with (p-value=0.000 < 0.05), and depending on the table (4-30), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of Disagree.

- The value of chi-square for the third phrase is (52.846) with (p-value=0.001 < 0.05), and depending on the table (4-30), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly Disagree.

- The value of chi-square for the fourth phrase is (15.538) with (p-value=0.011 > 0.05), and depending on the table (4-30), this indicates that there is no significant differences at the level (5%) between answers of study individuals.

- The value of chi-square for the fifth phrase is (11.231) with (p-value=0.043 < 0.05), and depending on the table (4-30), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of agree.

- The value of chi-square for the sixth phrase is (8.154) with (p-value=0.000 < 0.05), and depending on the table (4-30), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of Disagree.

The value of chi-square for all phrases in the fourth hypothesis (122.910), with (p-value =0.000 < 0.05) and depending on the table (4-30) this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of Disagree.

5- Fifth hypothesis of the study:" 'SWOT' analysis for positive impact to reducing the risk"

- **Discussion the Fifth hypothesis**

Table (4.32): Frequency distribution of the hypothesis phrases Answers

No.	Phrases	Frequency and percentages%				
		Strongly agree	agree	Neutral	Disagree	Strongly disagree
1	Occupation safety instructions are available in the workplace	17 %65.4	8 %30.8	0 %0.0	1 %3.8	0 %0.0
2	Stimulation encourage worker to make an extra effort	19 %73.1	4 %15.4	1 %3.8	2 %7.7	0 %0.0
3	Training and awareness reduces the risk ratio	21 %80.8	3 %11.5	0 %0.0	2 %7.7	0 %0.0

Table (4.33): Chi-square test results

No.	Phrases	Chi-square value	P-value	Median	Trend
1	Occupation safety instructions are available in the workplace	14.846	0.001	5	Strongly agree
2	Stimulation encourage worker to make an extra effort	32.769	0.000	5	Strongly agree
3	Training and awareness reduces the risk ratio	26.385	0.000	5	Strongly agree
	Hypothesis	101.487	0.000	5	Agree

- The value of chi-square for the first phrase is (14.846) with (p-value=0.001<0.05), and depending on the table (4-32), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the second phrase is (32.769) with (p-value=0.00 < 0.05), and depending on the table (4-32), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

- The value of chi-square for the third phrase is (26.385) with (p-value=0.000 < 0.05), and depending on the table (4-32), this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

The value of chi-square for all phrases in the hypothesis (101.487), with (p-value =0.000 < 0.05) and depending on the table (4-32), this indicates this indicates that there is significant differences at the level (5%) between answers of study individuals and in favor of strongly agree.

CHAPTER FIVE

CONCLUSIONS & RECOMMENDATIONS

CHAPTER FIVE

CONCLUSIONS & RECOMMENDATIONS

In a previous study he took place at the Faculty of Economic and Administrative Sciences in Jordan, the annual world Congress on Risk Management and Knowledge Economy (April 2007).

It is clear that every economic institution is currently facing risks to it is activities of different types, whether competitive, technological, economic, or environmental changes, growth and development and identification of the opportunities available to the institution that can be captured and before the competitors and find effective means to win them as well as identifying the threats that may be exposed to the institution from the external environment and what contingency plans prepared to address such risks if they happen. The accuracy of the identification of strengths, weaknesses, opportunities and threats is vital under the current 11circumstances, to ensure the integrity and sustainability of the institution. This accuracy in based primary on the methods and methods used to examine the internal and external environment the level of qualification and updating the information system in which the institution operates. All of this depends on the use of (SWOT) analysis efficiency and effectively. It use is not only necessary for the formulation of the institution economic strategies but also necessary for its sustainability and the risk it faces as a preventive defense. The risk management is no longer a consulting function, but under the current environmental conditions, it is one of the most important function that ensure the sustainability of the economic activity of the institution, strengthening and improving it is means of defense and addressing the threats and risks it faces. The importance of risk management is no less than the basic functions of the organization such as production, information and knowledge. Risk management must design a safety system for the economic institution in the face of all types of risks and prepare the necessary contingency plans, while

identifying the appropriate means to avoid or minimize the damage of the expected risks at the very least. It may be useful and effective to establish a risk management unit bearing names the (SWOT) unit to conduct periodic analysis of strengths, weaknesses, opportunities and threats and an going environment testing with (Brainstorming) meeting and adopt accurate and relevant scientific predication methods to develop future indicators at a more precise and objective level to facilitate the process of confronting the damages and threats of the future.

Conclusions

From the previous presentation and the ensuing discussion provide us with objective opportunities to draw the following conclusions:

1-Previously, the company was organizing a training program for employees but now no longer conduct such training; it is the responsibility of employees.

2-The number of working hours is long, the work starts at 7am and ends at 7pm, compare with the rest time.

3- Risk in the work environment, such as machines, and various other accident.

4-There is no barrier between department and employees, in the case of complaints, the director accepts them without distress.

Recommendations

1- For the benefit of the company consider re- training employees.

2- Reduce daily working hours, or increase hours of rest.

3- Put stickers that show the workers a danger in this place, and translate the warnings in the machines.

4- Review the complaints submitted to the manager to solve the problems in the company.

REFREENCES

REFREENCES

1- AIRMIC, AIARM, IRM. (2002). "A Risk Management Standard", Published, UK.

2- AIRMIC, AIARM, IRM. (2002). "A Risk Management Standard", Published, UK.

3- Australian Government, Department of the Environment and Heritage, CANBERRA ACT 2601, Australia: (2003)

4- *Charles, G. (2002),"*The American Institute of Architects": Knowledge Communities

5- European Centre for Modern Languages(1994)

6- FDA, (2009)

7- ISO22000:(2005)

8- Marcus: (2011)

9- Pauline Kneale and Sam Aspin all of the School of Geography at the University of Leeds with support from the White Rose for Enterprise and the National Teaching Fellowship Scheme

10- Prim, (2005)

11- Simons. Robert; Executive Forum, forum executive forum.net, (2002)

APPENDICES

بسم الله الرحمن الرحيم

Sudan University of Science and Technology

College Of Graduate Studies

Deanship of Development and Quality

Questionnaire for industrial food enterprises

Gentlemen Directors of MOAWIA ELBERIER GROUP,,,

Peace, mercy and blessings of God,,,

Please complete this questionnaire in an express and objective manner, knowing that all information you provide will be treated in strict confidence. Statistical study of the results will be conducted to study the points of improvement in order to upgrade the industrial establishments.

Thank you for your time and cooperation,,,

Researcher: Wasan Yousif Abdallah Abase

Please fill out the following information by placing(√) in front of the correct answer:

1- Gender:

Male (   )   Female (   )

2- Job title………………………

3- **Scientific Qualification**:

BA (   )   MSC (   )   PHD (   )

4- Section……………………..

5- Experience:

Less than 5 years (   )   From (5-10) years (   )   More than 10 years (   )

1-First hypotheses for study " **There is a statistically significant relationship between risk and strengths points** "

No.	Phrases	Frequency and percentages%				
		Strongly agree	**Agree**	**neutral**	**Disagree**	**Strongly disagree**
1	We have market share					
2	Display product in a good way					
3	Products vary in the company					
4	The Company provides means of safety for all employees					
5	The relationship between employees and the companies good					

2-Second hypotheses for study:" There is a statistically significant relationship between risk and weakness points"

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	neutral	Disagree	Strongly disagree
1	The large number competition from other companies on the same products					
2	Import-like products for our products					
3	Non-presidents agreement in decisions					
4	Production costs are high					
5	Products are suffering from lower sales					
6	High taxes					
7	Fear of risk					

3-Third hypothesis of the study: "There is a statistically significant relationship between risk and opportunity"

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	neutral	Disagree	Strongly disagree
1	Dollar's decline					
2	The raw material manufacturing in the factory					
3	Increase the diversity of goods and services					
4	The presence of a high efficiency of workers					
5	The Company provides a comfortable atmosphere to work					
6	The target market in witnessing an increase in products demand					

4-Forth hypothesis of the study: "There is a statistically significant relationship between risk and threats"

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	neutral	Disagree	Strongly disagree
1	Current fluctuations in the market					
2	Storage for a long time					
3	An increase in the damaged					
4	Back to the product from the market					
5	The existence of strong competition between food companies					
6	Un willingness of staff to buy					

5-Five hypothesis of the study: "'SWOT' analysis for positive impact to reducing the risk"

No.	Phrases	Frequency and percentages%				
		Strongly agree	agree	Neutral	Disagree	Strongly disagree
1	The administration continued evaluation of corporate competition					
2	The administration continued follow-up of the development of technology					
3	The actual perception of the risks that could effect					
4	Make sure there are no obstacles in the future					

Appendix (II):-

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بسم الله الرحمن الرحيم

Sudan University of Science and Technology

College Of Graduate Studies

Deanship of Development and Quality

Questionnaire for industrial food enterprises

Gentlemen Employees of MOAWIA ELBERIER GROUP,,,

Peace, mercy and blessings of God,,,

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Please complete this questionnaire in an express and objective manner, knowing that all information you provide will be treated in strict confidence. Statistical study of the results will be conducted to study the points of improvement in order to upgrade the industrial establishments.

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Thank you for your time and cooperation,,,

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Researcher: Wasan Yousif Abdallah Abase

Please fill out the following information by placing(√) in front of the correct answer:

1- Gender:
Male (   )   Female (   )

2- Job title………………………

3- **Scientific Qualification**:
Diploma (   )   BA (   )   MSC (   )   PHD (   )

4- Section………………………..

5- Experience:
Less than 5 years (   )   From (5-10) years (   )   More than 10 years (   )

1- First hypotheses for study: " **There is a statistically significant relationship between risk and strengths points** "

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Achievements director more than expected					
2	The director clear vision for the future					
3	Director great ability to deal with staff					
4	Owning a number of experts in your team					

2- Second hypothesis of the study:" There is a statistically significant relationship between risk and weakness points"

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Director listens to complaints that offer to him					
2	Director does not feel importance of workers					
3	The lack of qualified staff or trainers					
4	Products are suffering from a decline in quality					

3- Third hypothesis of the study:" There is a statistically significant relationship between risk and opportunity"

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Production of new goods					
2	Expansion in the current market					
3	Increase the diversity of good s					
4	The presence of a small number of competitors					

4- Forth hypothesis of the study:" There is a statistically significant relationship between risk and threats"

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The environment is not good to work					
2	Don't recognize the lead of Occupational Health and Safety Department					
3	Psychological factors affecting in the work environment in the work environment					
4	Office design and workplace uncomfortable					

5- Five hypothesis of the study:" 'SWOT' analysis for positive impact to reducing the risk"

No.	Phrases	Frequency and percentages%				
		Strongly agree	agree	Neutral	Disagree	Strongly disagree
1	Constant stimulation for workers					
2	Provide training sessions on an ongoing basis					
3	A positive relationship between the (SWOT) and other quality systems					

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Thank you for your time and cooperation,,,

Researcher: Wasan Yousif Abdallah Abase

Please fill out the following information by placing(√) in front of the correct answer:

1- Gender:

Male (　　)　　　　Female (　　)

2- Job title………………………

3- **Scientific Qualification**:

Uneducated (　　)　　　　　　Diploma (　　)　　　BA (　　)

4- Section……………………..

5- Experience:

Less than 5 years (　　)　　　From (5-10) years(　　)　　　More than 10 years (　　)

1-First hypotheses for study:" " There is a statistically significant relationship between risk and strengths points "

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	There is a continuous and effective training					
2	Stimulation and its impact on improving labor					
3	Maintenance workplace constantly					
4	The existence of tools and personal protective					
5	The existence of tools and personal protective					

2-Second hypothesis of the study:" There is a statistically significant relationship between risk and weakness points"

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The work environment is not suitable					
2	The number of working hours is unsafe					
3	The large number of injury and accident rates					
4	Salaries are inadequate, causing the worker to leave for work					

3-Third hypothesis of the study:" There is a statistically significant relationship between risk and opportunity"

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Address the management of risks related to the work environment					
2	Management oversight to make sure to wear protective equipment					
3	There are no barriers between departments and workers					
4	Types of occupational safety guidelines available to the work place					

4-Forth hypothesis of the study:" There is a statistically significant relationship between risk and threats"

No.	Phrases	Frequency and percentages%				
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Exposure to excessive heat					
2	Exposure to moisture or excess cold					
3	Lighting in appropriate					
4	Carry many burdens					
5	Big noise levels					
6	Injury, leading to the loss of employment					

5-Five hypothesis of the study:" 'SWOT' analysis for positive impact to reducing the risk"

No.	Phrases	Frequency and percentages%				
		Strongly agree	agree	Neutral	Disagree	Strongly disagree
1	Occupation safety instructions are available in the workplace					
2	Stimulation encourage worker to make an extra effort					
3	Training and awareness reduces the risk ratio					