



The Employees Perception of Food Safety Practices in select food companies

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Abstract: The employee's perceptions of hedges to implementing food safety practices in select food companies. The research study is focused on six food safety dimensions for easy to assessment of food problems and implementing food safety practices in select food companies. The six dimensions are related to food safety the respondent's questionnaire were received from 520 employees are working in four food companies. The food safety dimensions are classified that employees demographics profile, Food safety Methods, Quality Assurance, Hygienic, Pest Control, Quality Control. As per the dimensions food companies are following food safety methods. The food companies adopted advance technology for cleaning and Hygienic maintenance, sanitation technology for surfaces cleaning work. The main sources of knowledge regarding food safety were educational training and equipment training which help for food manufacturing with safety making of products and high quality with low cost. Food safety practice is an important Public Health issue to prevent or control food-borne illnesses. The governments all over the world are intensifying their efforts to improve food safety. The food safety is usually managed through regulation, Quality Assurance and Hazard Analysis Control Critical Point, Good Manufacture Practice, Quality Mmanagement System, Global Food Safety Initiatives, International Organization for standards 22000, these are internationally recognized logical tools for adapting traditional inspection methods to modern methods. The Prevention of Food Adulteration Act was introduced by the Government of India in 1954. It was replaced by the FSSAI in 2011. According to this act, Food protection from contamination that may lead to the health risk of consumer.

INTRODUCTION OF THE FOOD SAFETY PRACTICES

The Food is fuel for human body. It is essential for growth and maintain the proper health, food give necessary requirements for an human body, it provide energy and maintain body system. Most of the people obtained food from agriculture sector. According to world population growth, it is impossible to have adequate food supply. The food companies are playing a significant role to solve the problem.

The Demand for the food and customer satisfaction, health point of view, the food companies are making safety foods. The most important quality parameter within the food sector is food safety. The development of food processing technologies, applied latest quality control analytical methods. The Food safety means it give assurance that food products are safe to eat to the consumers. It means taking care with all aspects of food production and preparation to make sure that final food product is safe without any contamination. The food safety is usually managed through safety standards and regulation.

The Food safety logical tools are proved to be very effective tool to safety parameter in food processing sector. Based on the observation of the thesis carried out the fallowing conclusion are made that the raw material management and final product management enhance the safety. The Quality Control Lab before they are sent for proximate analysis of raw material and final food products. The Food Safety practices looks for hazards and check every critical control point if anything that could go wrong regarding product safety and implements controls immediately take necessary

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actions for that subsequently to ensure that product will not cause harm to the consumer. The Food safety system mainly focuses on identifying and preventing hazards. The Food safety methods are more efficient and effective in companies oversight and places more responsibility for assure safe food to customers. The select food companies are making biscuits. It is using compete effectively in the world market by reducing barriers to international trade.

MATERIALS AND METHODS

The study was performed in four biscuit manufacturing companies which are private limited food companies in Hyderabad, Telangana state. The employees are working total population 3800 in four food companies for three shifts to produce the biscuits and cookies. The respondent total 520 employees are taken from the total population. The simple random sampling method is using for selection of sample size from total population. Sampling size selection model based on the formula of Cochran.

The biscuit companies are following the food safety standards and guidelines as per the government rules and regulations. The select food companies are following below food safety standards

1. BRC (British Retail Consortium),
2. HACCP (Hazard Analysis Critical Control Points),
3. Agricultural and processed Food Products Export Development Authority APEDA),
- 4 .ISO 22000 Certified
5. FSSAI.

DATA ANALYSIS AND INTERPRETATION

This study presents the results of the data analysis of the responses obtained from the employees from the select food companies in Hyderabad, Telangana state. The study presents Descriptive statistical analysis, Chi-Square Analysis and ANOVA Analysis with respect qualitative data analysis is describe in the details. The data analysis has done with the main objectives of finding out the factors, particularly Food Company's employee's data qualitative analysis. The Data analysis is a process of allowing to collected data, analysis of data significance and determination of finding and conclusions. The data analysis helps in finding conclusions and results helps with help of scientific methods. The significance of the data analysis is to provide suitable findings for proper results and conclusions. The data collected and coding of data is done with suitable software like SPSS version.23. The data collected by several respondents of select food companies with help of questionnaires.

- **Null Hypothesis:** Demographic variable of Respondents does not influence the food safety Practices.
- **Alternative Hypothesis:** Demographic variable of Respondents influence the food safety Practices.

Table 1. Chi-Square demographics variables wise Respondents

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	205.457 ^a	45	.000
Likelihood Ratio	230.275	45	.000
Linear-by-Linear Association	45.062	1	.000
N of Valid Cases	520		

a. 24 cells (37.5%) have expected count less than 5. The minimum expected count is .25.

The table described that the relationship between the education of the Respondents and their Food safety practices. This analysis concludes that result found is 205.457, the significant difference (P value) is 0.00. It is found that significant difference (P value) less than 0.05. As per the table indicate that Null hypothesis is rejected and Alternative Hypothesis is accepted. Hence, it is concluded that the demographic variables of Respondents influences the Food safety Practices.

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Null Hypothesis: Demographic variable of Respondents does not influence the food safety Practices.

Alternative Hypothesis: Demographic variable of Respondents influence the food safety Practices.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.439	3	2.813	16.598	.000
Within Groups	87.448	516	.169		
Total	95.887	519			

The table described that the relationship between the education of the Respondents and their Food safety practices. This analysis concludes that result found F value is 16.598, the significant difference (P value) is 0.000. It is found that significant difference (P value) less than 0.05. As per the table indicate that Null hypothesis is rejected and Alternative Hypothesis is accepted. Hence, it is concluded that the demographic variables of Respondents influences the Food safety Practices.

Null Hypothesis: Food Safety Methods of Respondents does not influence food safety Practices.

Alternative Hypothesis: Food Safety Methods of Respondents influence food safety Practices.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	523.250 ^a	6	.000
Likelihood Ratio	579.738	6	.000
"Linear-by-Linear Association"	27.576	1	.000
N of Valid Cases	520		

Table described that the connection with Food Safety Methods and safety practices. This analysis concludes that the Pearson found is 523.250, the significant value (P value) obtained 0.000. It is obtained significant value (P value) below 0.05. As per the results from the table indicate that the rejected Null hypothesis, accepted the Alternative Hypothesis. It results that the Food Safety Practices influence by Food Safety Methods of Respondents.

Null Hypothesis: Food safety methods of Respondents do not influence the food safety practices.

Alternative Hypothesis: Food safety methods of Respondents influence food safety Practices

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.962	3	1.321	2458.159	.000
Within Groups	.277	516	.001		
Total	4.239	519			

Table described that the connection with the education of the Respondents and their Food safety practices. This analysis indicates that the result found is 2458.159, the significant value (P value) obtained 0.000. It is found that a significant value (P value) below 0.05. As per the table indicate that the rejected Null hypothesis, accepted the Alternative Hypothesis. It results that the Food Safety Practices influence by Food Safety Methods of Respondents. It helps to get better the quality of the food products. Quality control methods cover food company certification. Food safety standard methods, raw material checking and packaging material checking, final product inspection, etc

Null Hypothesis: Quality Assurance of Respondents does not influence food safety Practices.

Alternative Hypothesis: Quality Assurance of Respondents influence food safety Practices.

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Table 5. Chi square Test Statistics			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	30.810a	57	.000
Likelihood Ratio	32.475	57	.000
"Linear-by-Linear Association"	.705	1	.000
N of Valid Cases	520		

Table described that the connection with Quality Assurance of the Respondents their Food safety practices. This analysis concludes that the Chi-Square result is 30.810, the significant value (P value) obtained 0.000. It is found that a significant value (P value) below 0.05. The findings showed that the null hypothesis was firmly denied and the alternative hypothesis accepted. It concluded that food safety Practices influence by Quality Assurance as per intension of Respondents.

Null Hypothesis: Quality Assurance of Respondents did not influence the food safety Practices

Alternative Hypothesis: Quality Assurance of Respondents influence the food safety Practices.

Table 6. ANOVA Test Statistics					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.062	3	.021	.283	.000
Within Groups	37.723	516	.073		
Total	37.785	519			

Table described that the relationship between the Quality Assurance of the Respondents and their Food safety practices. This analysis concludes that the result found is 0.283, the significant value (P value) obtained 0.000. It is found that a significant value (P value) below 0.05. As per the table indicate that the rejected Null hypothesis, accepted Alternative Hypothesis. It concluded that food safety Practices influence by Quality Assurance as per intension of Respondents. It helps to enhance the food quality of the food products.

Null Hypothesis: Hygienic of Respondents does not influence the food safety Practices.

Alternative Hypothesis: Hygienic of Respondents influence food safety Practices.

Table 7. Chi-Square Test Statistics			
	Value	df	Asymptotic Significance
Pearson Chi-Square	5.496 ^a	21	.000
"Likelihood Ratio"	5.426	21	.000
"Linear-by-Linear Association"	.866	1	.000
N of Valid Cases	520		

Table described that correlation with Hygienic of the Respondents and their Food safety practices. This analysis concludes that the found value is 5.496, the significant difference value (P value) obtained 0.000. It is found that a significant (P value) below 0.05. The findings showed that the null hypothesis was firmly denied and the alternative hypothesis accepted. It concluded that food safety Practices influence by Hygienic as per intension of Respondents.

Null Hypothesis: Hygienic of Respondents does not influence the food safety Practices.

Alternative Hypothesis: Hygienic of Respondents influence food safety Practices.

Table 8. ANOVA Test Statistics					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.113	3	.038	.329	.000
Within Groups	58.913	516	.114		
Total	59.026	519			

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Table described that the relationship between the Hygienic of the Respondents and their Food safety practices. This analysis concludes that the result found is 0.329, the significant value (P value) obtained 0.000. It is found that a significant value (P value) below 0.05. The findings showed that the null hypothesis was firmly denied and the alternative hypothesis accepted. It concluded that food safety Practices influence by Hygienic as per intension of Respondents. It helps to enhance the food quality of the products.

Null Hypothesis: Pest Control of Respondents does not influence food safety Practices.

Alternative Hypothesis: Pest Control of Respondents influence food safety Practices.

	Value	df	Asymptotic Significance
"Pearson Chi-Square"	2.939 ^a	21	.000
Likelihood Ratio	2.892	21	.000
"Linear-by-Linear Association"	1.250	1	.000
N of Valid Cases	520		

Table described that the relationship between the Pest Control of the Respondents and their Food safety practices. This analysis concludes that the Chi-Square result is 5.496, the significant value (P value) obtained 0.000. It is found that a significant value (P value) below 0.05. The findings showed that the null hypothesis was firmly denied and the alternative hypothesis accepted. It concluded that food safety Practices influence by pest control as per intension of Respondents.

Null Hypothesis: Pest Control of Respondents does not influence food safety Practices.

Alternative Hypothesis: Pest Control of Respondents influence food safety Practices.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.152	3	.051	.454	.000
Within Groups	57.490	516	.111		
Total	57.642	519			

Table described that the relationship between the Pest Control of the Respondents and their Food safety practices. This analysis concludes that the result found F value is 0.454, the significant (P value) obtained 0.000. It is found that a significant value (P value) below 0.05. As per the table indicate that the rejected Null hypothesis, accepted Alternative Hypothesis. It concluded that food safety Practices influence by pest control as per intension of Respondents. It helps to improve the quality of the food products.

Null Hypothesis: The Quality Control of Respondents does not influence food safety Practices.

Alternative Hypothesis: The Quality Control of Respondents influence food safety Practices.

	Value	df	Asymptotic Significance
Pearson Chi-Square	2.371 ^a	21	.000
Likelihood Ratio	2.330	21	.000
"Linear-by-Linear Association"	.424	1	.000
N of Valid Cases	520		

Table described that the connection with the Quality Control of and Food safety practices. This analysis concludes that the Chi-Square result is 2.371, the significant value (P value) obtained 0.000. It is found that a significant value (P value) below 0.05. The findings showed that the null hypothesis was firmly denied and the alternative hypothesis accepted. It concluded that food safety Practices influence by Quality Control as per intension of Respondents.

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Null Hypothesis: The Quality Control of Respondents does not influence food safety Practices.

Alternative Hypothesis: The Quality Control of Respondents influence food safety Practices.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.063	3	.021	.261	.000
Within Groups	41.745	516	.081		
Total	41.808	519			

Table described that the connection with the Quality Control and Food safety practices. This analysis concludes that the result found is 0.261, the significant difference (P value) obtained 0.000. It is found that a significant (P value) below 0.05. As per the table indicate that the rejected Null hypothesis, accepted the Alternative Hypothesis. It concluded that food safety Practices influence by Quality Control as per intension of Respondents. It helps to enhance the food safety of the food products.

CONCLUSIONS

The study concluded that the employee's response on food safety practices in select food companies. It adopted the food safety standards and regulations like FSSAI and HACCP, ISO22000:2005, BRC, APEDA. The reasonable partnership between the Indigenous Food Safety Standard Authority and other international bodies that ensure food safety and food law standards. The roles of food safety standards must be considered within the circumstance of inspections are carried out from companies. Inspection from the raw material to the finished product allowing process run. As the study is limited to four food companies which is located at Hyderabad, Telanagna foods.

The select food companies have produced biscuits and cookies ensure crispiness and high quality which is more acceptable. The biscuits are considered as a snack there contain crispiness contain product and manufacturing so many types of variety biscuits. All the raw materials and packaging material analysed in the Quality Control laboratory before they are sent to processing. It has given chance for employees for active participation with training and also improved their knowledge in fields of food processing. The companies are producing high protein and calorie supplement products to children and all age group people. The select food companies are following the food safety standard and guidelines, as per records dates conducting internal and external audits, providing suitable training for employees, the companies overall food safety practices satisfied with the export quality of food products. The select food companies data analysis was concluded that respondent perception on food safety practices influence to six dimensions like employees demographic variable, Food safety Methods, Quality Assurance, Hygienic, Pest Control, Quality Control, as per research study select food companies are following suitable food safety standards and making safety products.

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