Checklist for self-evaluation of Food Security Management System food preparation facilities.

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Abstract

The concept of food security has been emerged in the 20th century and many multilateral organizations such as World Bank, International Monetary Fund, World Trade Organization and United Nations (UN) have utilized the term "food security" to describe the global effort to eliminate hunger and malnutrition.

Food safety and food security are interrelated concepts with a profound impact on quality of human life. In 2009, the World Summit on Food Security introduced four pillars of food security namely; availability, access, utilization, and stability. Food security could be substantially improved by increased investment and policy reforms. The ISO 22000:2005 family of international standards is one of leading food safety security management systems and it specifically addresses food safety management. However, the scope of food security is insufficiently addressed by the ISO 22000:2005 food safety standards. The purpose of this study is to develop checklist for self-evaluation of Food Security Management System food preparation facilities considering one additional pillar in food security, which is food safety, with a special reference to edible oil and oil based products in Sri Lanka.

Method and Data Analysis

Among 745 Colombo Municipal Council (CMC) registered food preparation facilities, 75 facilities were selected as a stratified random sample. A self-administered online questionnaire was used to identify gaps in local food security practices in edible oil. Of the total responders, 60% were chefs and 40% were hotel managers. Out of total response 59.1% had awareness about the food safety management system for 2 -5 years. Around 28.2% of participants were aware about this concept for more than 6 years. Majority of the participated i.e. 54.6% used Palm oil as the cooking oil, 28% Soybean oil, 10.7% Sunflower oil and only 6.7% or least number of participants utilized Coconut oil (6.7%) as a dripping. Despite of awareness, as a practice, 37.3% selected the cooking oil as a routine, 34.7% selected considering cheap in price, 12% considered popularity

in the market and 10.7% considered its easy availability. Only 5.3% of participants actually considered the healthy and nutritional values of oil when selecting the type of cooking oil for their routine use. Further, majority of the participants i.e. 52%, used palm oil for frying purpose despite of the awareness on adverse health consequences from frying with palm oil.

Recommendation

The results of the survey revealed that the Sri Lankan food preparation facilities are significantly behind in food security practices because they match more considerable about food safety management principles. Therefore, in addition to food safety management system, we suggest to include four pillars in food security systems into the standard because of significantly food security practices are lacking in our current system. Thus, the prepared checklist is based on considering availability, access, utilization, stability and safety indicators and use those indicators according to the "4 M"- man, method, materials and machine. Then using the checklist, it is assessed how food security four pillars and safety utilize during the procurement, storing & distribute materials, preparation for process, processing, storing & distribute processed product and general requirement. Therefore, our recommended checklist can be used to identify the deviations in the existing practice and the areas need to be further improved.

Related Recent Publication

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Biography:

Aparajith Manupriya Hettiarachchi have an experience in food safety management system (ISO 22000:2005, FSSC 22000:2013, BRC, HACCP and GMP) and quality management system (ISO 9001:2015) as a lead auditor in SGS lanka (Pvt.) Ltd. I had obtained B.Sc. in Molecular Microbiology, M.Sc. in Industrial Utilization of Medicinal and Aromatic Plants, University of Sri Jayawardanapura, Sri Lanka and MBA in Management of Technology, University of Moratuwa, Sri Lanka.