

**SMART FOOD SAFETY MANAGEMENT FRAMEWORK
FOR SMALL SCALE RESTAURANTS**

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By

**HORADHAGODA ARACHCHIGE DONA CHARUNI LALANTHI
SANDIPANI**

**Department of Animal Science
Faculty of Animal Science and Export Agriculture
Uva Wellassa University**

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ABSTRACT

Food safety inspection is a crucial factor in small scale restaurants, to prevent food borne illnesses among the consumers. HACCP is the international tool to manage food safety effectively which can be used as a unique protocol to assure the food safety in any food company. However, due to the limited time as a local public health inspector, food safety is a minor concerned subject in their field of working. Objective of this study is to enhance the existing Sri Lankan food inspection process through a developed food safety management framework, which analyse, diagnose and implement main principles of food safety. Personal interviews with health professionals and pilot survey for small scale restaurants (30) were conducted to understand the existing food inspection programme. Based on that pilot survey, among the targeted group of food handlers, most were lack of knowledge on food safety and sanitation. Hence, a food risk assessment model based on HACCP for small scale restaurants was developed. The developed model was a food services inspection checklist that can be used for restaurant food safety inspection. In order to facilitate the end-users to use this developed model, an Android food safety application which consists of optimized user interfaces and online database was developed. The prototypical development was achieved by proofing the concept for the feasibility of the developed risk assessment model. This development was achieved the user satisfaction in the field level due to its effectiveness and accessibility. As a result, it assures the food safety in small scale restaurants and has potential to improve the food safety practices in food services in the areas covered by the national hygienic and sanitary regulations. Furthermore, “big data” collection through this mobile application can be used for further data analysis, which creates multiple research opportunities.