FNL.ENG.1

SAFE FOOD INDEX FOR RATING SMALL-SCALE FOOD MANUFACTURERS

E. A. P. C. Bandara, K. L. L. R. Amarasekara, R. Shanthini

Department of Chemical and Process Engineering, Faculty of Engineering, University of Peradeniya

Food which is safe for humans and the earth has been a modern concern. Even though food quality standards are well established and enforced when considering large-scale food manufacturers, the same cannot be said about small-scale food manufacturers, even though they play a vital role in the food industry.

The objective of this study is to assess food quality and related factors of small-scale food manufacturers and rate them. The analysis and rating have been done by using well known chemical and process engineering tools, such as cleaner production, food safety, environmental management, process optimization and standardization series ISO 22000 and HACCP, to have a realistic assessment of the food manufacturing processes of a chosen small-scale manufacturer.

The paper discusses the Safe Food Index (SFI) developed in this study. The methodology used involves assessment of food safety, quality of the process and environmental considerations, consumer satisfaction and waste control or prevention via a questionnaire based interview with the manufacturers. The quality of the said questionnaire was enhanced by information gathered on consumer satisfaction via the distribution of another questionnaire among the consumers in a preliminary study.

For the responses chosen by the manufacturer for each question in the questionnaire, a weight was given considering the strength of the response. For each manufacturer, an ideal manufacturer was defined whose response would be the best. The deviation between the ideal manufacturer and the actual manufacturer was used to compose the rating.

The SFI so formulated was tested with three small-scale hotels and one food cart in Peradeniya and Ratnapura areas, and rated on a scale from 1 to 5. The ratings assigned to them were displayed on boards, with their consent, in front of their business places. Thereby, the customer was provided with the opportunity to choose an appropriate food outlet to get quality and safe food. In this manner, the manufacturer is encouraged to strive for a better rating in the future.

This is a concept study carried out on a limited-scale to fill a vacuum in enforcing food quality standards, and is recommended for further analysis, possible modifications and final adaptation by relevant Sri Lankan authorities on food quality management.