

**BEST DISH - A DIGITAL MENU AND FOOD ITEM  
RECOMMENDATION SYSTEM FOR RESTAURANTS IN  
THE HOTEL SECTOR**

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## Abstract

Eating out of home is a growing trend today, globally as well as in Sri Lanka. This is due to the changing lifestyles centered around busy schedules and the liking towards dining out for pleasure. Easy accessibility to a variety of food options including ethnic cuisines further contributes to this trend. However, customers are becoming increasingly concerned regarding the food they consume as a result of the rising levels of non-commutable diseases such as obesity and high blood pressure. Thereby, customers face difficulties in making food decisions whilst considering information such as nutritional composition, origin of ingredients and the preparation methods of food as well as their individual food preferences and dietary restrictions.

This project aims at analysing factors that contribute to customer difficulties and to design and develop an IS solution that assists customers in making food decisions, thereby enabling them to enjoy an enhanced dining experience. An effective system has been developed taking into account many aspects such as restrictions arising due to customer's personal factors, lack of information provided on menus, situational difficulties and further limitations of paper based menus which were identified through literature. Additionally, these findings were validated locally through the means of interviews focused on restaurant managers and a survey targeted at restaurant customers.

Findings confirmed that the problems identified through literature are consistent in the Sri Lankan context. The necessity for a solution to assist the food decision making at restaurants was evident. Thus, the 'Best Dish' application was designed and developed to ease customer difficulties. It is a digital menu and food item recommendation system that offers adequate information to customers to make informed food decisions. 'Best Dish' comprises of features that aid the restaurant staff and management in serving customers better. Lastly, this solution was deemed valuable and suitable for the restaurant setting by experts in the hotel sector, while restaurant customers found it to be useful in solving their common difficulties. Following an in-depth self-evaluation, recommendations for future enhancements have been presented.

**Keywords-** Digital menu, Personalised food item recommendation, Hotel sector, Deep Learning.