

UNIVERSITI TEKNOLOGI MARA

**THE IMPACT OF FOOD-HYGIENE
PRACTICES, LEADERSHIP
EFFECTIVENESS, AND SPIRITUAL
INTELLIGENCE TOWARDS
*PROGRAM LA TIHAN DAN KHIDMA T
NEGARA (PLKN) FOODSERVICE
PERFORMANCE***

MAZNIBINTI SAAD

Thesis submitted in fulfillment
of the requirements for the degree of
Doctor of Philosophy

Faculty of Hotel and Tourism Management

September 2016

ABSTRACT

Food poisoning cases in the National Service and Training Programme (PLKN) camps are on the rise for over 10 consecutive years despite measures taken by responsible parties and therefore require further attention. Specifically, an unchanged pattern of foodborne incidence has triggered an alarming question on the sustainable operation of food service business in these camps. The objectives of this study are to (i) assess the Food-hygiene Practices of food handlers at PLKN, (ii) to analyse the relationship between Leadership Effectiveness, Food-hygiene Practices, and Spiritual Intelligence (SQ) and (iii) to investigate the impact of these study variables; Leadership Effectiveness, Food-hygiene Practices, and SQ on PLKN's Foodservice Performance. The existing level of Food-hygiene Practices was assessed through questionnaire, interview, and observation, as well as microbial sampling experiments. The questionnaire also assessed the relationship and impact of the four parameters of the study (Leadership Effectiveness, Food-hygiene Practices, SQ, and Foodservice Performance). The survey yielded 87.80% responses from 81 operating camps in Malaysia and provided 1026 usable datasets. Six sets of interviews were conducted among the supervisory personnel of the PLKN camps. For empirical data, 288 microbiological samplings of food-contact surfaces (FCS) and 36 drinking water sources were conducted. The data was analysed using the partial least square and appropriate statistic tools. The microbial analyses failed to correlate with the cleanliness survey, but were consistent with food poisoning outbreaks in the camps. FCS with flat open surfaces such as cutting boards and food trays were found exposed to secondary contamination during the drying and storing stage. They were also prone to transferable bacterial contaminants, thus regular washing and rinsing with hot water is necessary to improve the level of effective cleaning. The camp operators can conduct hygiene control tests independently using a simple microbial swab kit as suggested by this study. An adequate number of food handlers per trainees for every meal session should be reconsidered by the camp operators. This study significantly proved that an effective foodservice manager evokes positive feelings among the food handlers to form a situation of continuous well-being during routine practices. At empirical level, the established interconnectedness between the spiritual and practical person and his/her work applications and expectations underlie and support their thoughts of self-development and success at work. Producing and presenting quality food and services reflects a sense of obligation in helping others through correct practices, while keeping account of one's good deeds for the benefit of one's journey towards the next life. Out of 17 tested hypotheses, SQ Holistic and SQ Challenge failed to reject the null hypotheses in favour to our research hypotheses for food performance. With the large and valid datasets, the positive results showed that the model proposed in this study could be generalized to the routine practices-and-performances of other foodservice institutions. Overall, this study has successfully achieved its objectives. The results provide suggestions for PLKN foodservice to develop at a significant level, to be profitable while satisfying customers by meeting their expectations and preferences in healthy food consumption, and to face present challenges while remaining competitive in an increasingly aggressive world.

ACKNOWLEDGEMENT

In the name of Allah, Most Gracious, Most Merciful. All praise is to Allah the Lord of the Universe. May He bestow peace and blessings on Muhammad (S.A. W.) His last messenger!

Alhamdulillah, successfully completing my thesis would not have been possible without the will of Allah and the help of many people around me. My foremost debt is to my first advisor Associate Professor Dr. Mohd Faiz Foong Abdullah - I am thankful to him for his most professional quality supervision which has enabled me to reach my final destination. His honesty and sincerity will forever remain in my heart. To my second and third advisors Associate Professor Dr. Mohamed Azam Mohamed Aidil and Dr. Normalini Md Kassim, without your guidance and persistent help this thesis would not have been possible. Their full support has fuelled my passion in achieving the objectives of this study. To my former supervisor, Professor (E) Datin Dr. Toh Poh See, Ph.D, thank you for the brilliant idea of creating this study in PLKN and also of obtaining a grant from the Ministry of Health (MOH). It was indeed extremely helpful in laying the grounds for this Ph.D. research. I remember very well her full support, while lobbying for the grant, during the innovation, and invention competition, and even being there at my viva!

Not forgetting, the Dean of the Faculty of Hotel and Tourism Management, Associate Professor Dr. Abdullah Hemdi, for his idea of including the Spiritual Intelligence (SQ) element which is currently in vogue. Special thanks for the continuous support, constructive comments and warm encouragement from the lecturers, administrative staff, and colleagues of Universiti Teknologi MARA (UiTM), Universiti Sains Malaysia (USM), and Universiti Selangor (UNISEL). I thank the National Service Training Department and all the National Service Training Programme camps, and the MOH for allowing me to conduct this study and to realize my dreams. I finally like to express my gratitude to the Ministry of Education for MyBrain15 financial assistance and the MOH and UiTM for awarding me the much-needed project and grant.

Finally, this thesis is dedicated to my parents, *ayahanda* Saad Abdullah and *bonda* Hasiyah Othman: I pray hard to have you both sitting in the hall on my convocation day. I have missed both of you during all the convocations of diploma, bachelor degree, and masters due to unforeseen circumstances. May Allah S.W.T. allow you two to witness your first daughter's big day! To my princess - *anakanda* Muhammad Danial Haiqal and Muhammad Danish, my princesses - Nazurah Batrisyia Syaurah and Nazurah Qaissara Ajwa, and my lovely hubby - *kekanda* Zainuddin Yahaya who have been extraordinarily tolerant and supportive throughout my Ph.D journey, I owe you all a very important debt - the precious time and unlimited patience. Thank you so much for generous support received from siblings, relatives and many friends, directly and indirectly - I really appreciate the truly sincere and warm friendships that we have especially during some of the most difficult times of my life. Again, *jazaakAlahu khairan khatira*, my wish is for Allah to help me contribute further to society, *Aamiin!*

TABLE OF CONTENTS

CONFIRMATION BY PANEL OF EXAMINERS

AUTHOR'S DECLARATION

ABSTRACT

ACKNOWLEDGEMENT

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

LIST OF ABBREVIATIONS

CHAPTER ONE: INTRODUCTION

1.1 Introduction

1.2 Foodservice for Business and Industry

1.3 Background of the Study

1.3.1 Foodservice Operation at PLKN Camps

1.3.2 Food Poisoning in the National Services Training Programm
(PLKN) Camps

1.4 Problem Statement

1.5 Research Objectives

1.6 Research Questions

1.7 Rationale and Significance of the Study

1.8 Structure of the Thesis

1.9 Scope and Delimitations of the Study

1.10 Limitations

1.11 Operational Definition of Terms

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction	14
2.2 Food Contamination Incidence	14
2.3 Government Initiative in Controlling Food Contamination Incidence	15
2.4 Health and Safety Hazards in Foodservice Industry	17
2.5 Acts and Legislations for Health and Safety and Food Safety Practices	19
2.6 Demand for Food Safety	23
2.6.1 Halal Issues	23
2.7 Underpinning Theories and Models	27
2.7.1 Expectancy Theory (ET)	28
2.7.2 Practice-Performance Models	29
2.7.3 Spiritual Intelligence (SQ) Models	31
2.8 Relevant Study Variables	32
2.9 Foodservice Performance	32
2.10 Food-hygiene Practices	35
2.10.1 Food-handling Safety Measures for Food and Water	37
2.10.2 Food-contact Surfaces	39
2.10.3 Water Supply, Sanitation, and Hygiene	41
2.11 Leadership Effectiveness	43
2.12 Intelligence	44
2.12.1 Emotional Intelligence (EQ)	44
2.10.	
2.12.2 Spiritual Intelligence (SQ) in Literature	45
2.12.3 Spiritual Intelligence (SQ) Components	48
2.12.4 Religion, Spirituality, and Health	50
2.13 Theoretical Framework	51
2.14 Research Hypotheses	52
2.14.1 Leadership Effectiveness and Food-hygiene Practices	52
2.14.2 Leadership Effectiveness and Spiritual Intelligence	55
2.14.3 Food-hygiene Practices and Foodservice Performance	59
2.14.4 Leadership Effectiveness and Foodservice Performance	60
2.14.5 Spiritual Intelligence (SQ) and Foodservice Performance	64
2.15 Chapter Summary	69