## UNIVERSITI TEKNOLOGI MARA

# EMOTION-BASED FEEDBACK CLASSIFICATION FOR MOBILE TOURISM APPLICATION (EMOTOUR)

### MOHAMED AMEER BIN AZEEZ

Computing Project submitted in partial fulfillment of the requirements for the degree of **Master of Science in Information Technology** 

**Faculty of Computer and Mathematical Sciences** 

January 2017

### **ABSTRACT**

Past studies have shown that the use of smartphones and mobile applications can greatly affect a user and their emotions. Nowadays, the use of mobile applications is ubiquitous and are popular. Tourism based applications are one of the popular applications that offer users with navigation, travel tips, travel plans and provide users feedback reviews. Even though tourism applications offers these features, it lacks the feature of emotion based feedback. This research proposes a classification of emotion-based feedbacks by using emoticons and a user interface design for emotive tourism mobile application (EmoTour). It begins by comparisons of current tourism applications, acquiring user feedbacks from interviews, analyzing the feedback through Thematic Analysis approach and presenting the prototype of EmoTour. The EmoTour is developed based on the emotion feature of feedback reviews that the users feel when they experience a certain location. The emotion feedback proposed contains the use of emoticons that are represented by acknowledged emoticons which represents all different emotions. With the implementation of EmoTour, anyone can benefit the use of the feedback review at anytime and anywhere using their smartphones. A selected group of informants consisting of two lecturers and three travelers had participated in interview sessions to provide the input for the content of the Thematic Analysis themes. The themes were then reviewed for the design of EmoTour application modules which lead to the findings of this research. The result of this research will become a reference to the application developers to improve the usability and emotional feature of user experiences (UX) of their applications.

#### **ACKNOWLEDGEMENT**

First and foremost, the deepest gratitude of all shall be bestowed to Allah the Almighty and The Merciful for all the insight which He gave to us that lead to the completion of this research. Without His blessings and consent, I might not have enough courage and determination to complete this research. All my thanks and appreciation will be lay upon Him.

My deepest gratitude is extended to Puan Mudiana Mokhsin @ Misron, for all assistance, advice, guidance, encouragement, new ideas and invaluable support given as my project supervisor for a better quality in my research. Thank you for being such a great mentor. I also would like to express my gratitude and sincere appreciation to En Azhar bin Abdul Aziz for his invaluable knowledge, comment and recommendation on how to enhance my research.

Not forgetting very special thanks to all staff informants for the interview sessions and all the lecturers, friends also colleagues of Master Science (Information Technology) for their support and encouragement during the process of completing this research.

Finally, I would like to express my deepest gratitude to my wife and family members for all the support and courage towards my success. Without their personal sacrifices and being a constant source for encouragement, especially in the final stages, this thesis would not have been possible.

Thank You.

## TABLE OF CONTENTS

	Page
AUTHOR'S DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	V
LIST OF TABLES	vi
LIST OF FIGURES	vii
CHAPTER ONE: INTRODUCTION	1
1.1 Research Background	1
1.2 Problem Background	2
1.3 Problem Statement	3
1.4 Research Aim	4
1.5 Research Questions	4
1.6 Research Objectives	5
1.7 Research Scope	5
1.8 Significance	6
CHAPTER TWO: LITERATURE REVIEW	
2.1 Introduction	8
2.2 Mobile Application Characteristics	8
2.3 Tourism Based Applications	9
2.4 Top Trending Mobile Tourism Applications In Malaysia	10
2.5 Emotions Feedback In Applications	16
2.6 Emotive Features	17
2.7 The Evolution Of The Web And Web 5.0 In Human Emotions	22
2.8 Literature Map	24

# CHAPTER TWO LITERATURE REVIEW

#### 2.1 INTRODUCTION

Chapter 2 discusses about the literature reviews related to the research. The literature reviews included here refers to other related material, information and existing documents. A broad literature search was conducted through the use of Science Direct and Springer Link databases in an online library. A total of 10 dissertations, 5 scholar proceedings, 2 books and journals were reviewed. At the current time of writing, there are no similar papers to be reviewed with regarding applications that have been developed with emotive features. Therefore, the literature reviews points specifically focuses on mobile application characteristics, tourist guide applications and emotions and relevant points to develop the tourism application with emotive features.

#### 2.2 MOBILE APPLICATION CHARACTERISTICS

Of the many papers reviewed, there are different approaches to developing the characteristics of the features in mobile application. One method to approach this is to introduce the usability of different types of icons in mobile applications. In one research carried out on students of a university, the researcher has discovered that some usability of the use of abstract icons are the same as compared to concrete icons (Susan, 2000). Based on another method done by the same researcher about icons and its characteristics, it was discovered that those students involved in that research had come across a few issues when trying to memorize the meaning of un-labeled icons over a period of one week. Nevertheless, the issues seemed to have reduced when exposed to the same icons over a longer period of time. There are also age related matters that affects the use of certain mobile application characteristics. It differs from a younger group of users to an older generation of users as it can be seen that there are different levels of interaction with the applications. These can be simply changed by making the application have a much more