MARKETING DISTRIBUTION USING MOBILE TECHNOLOGY

SALAH ELDEEN ALI SAAD (802001)

Emai - Salahtarot@yahoo.com

UNIVERSITI UTARA MALAYSIA

College of Arts and Sciences
Abstract

The following project looks into how the development process will take place for a prototype for marketing using new technology such as mobile commerce when a company called Aljawdh is doing business with its customers. The prototype will show the functionality of the interface being used from a computer screen as well as when it is being used on a mobile device. Aljawdh will be changing it system that it is using from a manual system to a computerized system. The problem areas were with the functions of the manual system that was being used by the company in keeping records of their products that were on promotions and those that were not. The problems that were faced by Aljawdh Company were adequately solved by the introduction of the computerized system that could be used to notify customers for products that were on promotions as well as keep records of all the products that the company had. The methods that were used to solve the major problems that the company was facing was to introduce the system that could send SMS and MMS to customers phones when being notified of the products that will be on promotion. The other method of solving the problem was to have a system that could be linked to suppliers so that they could be easily notified if there is any reorder required of products that would have been finished. In coming up with the required system it was found out that not all the required functions and non-functions of the system could be implemented due to inadequate information give during requirements gathering that was carried out. The prototype had also some delays when it comes to linking up with the database to update and delete information in the database.
Acknowledgements

These go to my supervisors Dr. Faudziah Ahmad and Assoc. Prof. Dr. Wan Rozaini Sheik Osman, for the dedicated work and effort that was shown during the development and document write up for this project. Thank you to University Utara Malaysia for the support and guidance thought the education process and all the facilities that were made available to me in coming up with this project.
# TABLE OF CONTENTS

## CHAPTER ONE

1.0 Introduction

1.1 Background

1.2 Problem Statement

1.3 Research Question

1.4 Research Objectives

1.5 Scope of the Research

## CHAPTER TWO

2.0 Literature review

2.1 Introduction

2.2 E-commerce

2.3 Mobile Web Application

2.4 Nikebasketball Mobile Application

2.5 The Weather Channel

2.6 Stephen King Mobile

2.7 MSNBC.com Mobile and Action Engine

2.8 Mobile Marketing

## CHAPTER THREE

3.0 Methodology
## CHAPTER FOUR

4.0 Data analysis...........................................................................................................27
4.1 Introduction.............................................................................................................27

4.1.1 Use Case Diagram .........................................................................................27
4.1.2 Use Case Specification ...................................................................................30

4.1.3 Sequence and Collaboration Diagrams .......................................................38

4.1.4 Class Diagram ..................................................................................................51

4.1.5 USE TEST CASE ...............................................................................................52

4.2 Summary ..............................................................................................................60

## CHAPTER FIVE

5.0 Conclusion.............................................................................................................61
5.1 Conclusion.............................................................................................................61

5.2 The advantages of using prototyping system for Aljawadh Company........61
5.3 The disadvantages of using prototyping system for Aljawadh Company......62
5.4 Limitation of using prototyping system for Aljawadh Company.................62
5.5 The future research..............................................................................................63
LIST OF FIGURES

Figure 2.1: Nike basketball Mobile Application..................................................8

Figure 2.2: Weather Channel Application..............................................................9

Figure 2.3: Stephen King Mobile ...........................................................................10

Figure 2.4: MSNBC.com Application...................................................................12

Figure 2.5: Traffic Information System Architecture.............................................13

Figure 2.6: Illustration of an SMS Advertisement................................................14

Figure 2.7: Framework of Mobile Campaign.........................................................15

Figure 3.2: Prototyping phase.................................................................................16

Figure 4.1: Use case diagram for the proposed system........................................29

Figure 4.2: Login Sequence Diagram....................................................................39

Figure 4.3: Login Collaboration Diagram..............................................................40

Figure 4.4: Manage Promotion Sequence Diagram ..............................................41

Figure 4.5: Manage Promotion Collaboration Diagram .......................................42
Figure 4.6: Send SMS Sequence Diagram........................................................................43
Figure 4.7: Send SMS Collaboration Diagram ............................................................45
Figure 4.8: Sign-up Sequence Diagram........................................................................45
Figure 4.9: Sign-up Collaboration Diagram....................................................................46
Figure 4.10: Search Sequence Diagram.........................................................................47
Figure 4.11: Search Collaboration Diagram.....................................................................48
Figure 4.12: Deliver Product Sequence Diagram..........................................................49
Figure 4.13: Deliver Product Collaboration Diagram......................................................50
Figure 4.13: Class Diagram for the Proposed System.......................................................51
Figure 4.14: Register Page.............................................................................................52
Figure 4.15: Login Page..................................................................................................53
Figure 4.16: Customer Main Page...................................................................................54
Figure 4.17: View Product Details Page.........................................................................55
Figure 4.18: View Message Details Page.......................................................................56
Figure 4.19: Search Product Details Page.....................................................................57
Figure 4.20: Employee Main Page..................................................................................58
Figure 4.21: Manage Promotion Page............................................................................59
## List of Tables

Table 3.1: Requirements Catalogue Entry .......................................................................................... 20

Table 3.2: Functional requirements ................................................................................................. 20

Table 3.3: Non-functional requirements ........................................................................................... 21

Table 3.4: Benefits ............................................................................................................................ 23

Table 3.5: Comments or suggested solutions .................................................................................... 23

Table 3.6: Related documents ........................................................................................................... 24

Table 3.7: Related requirements ....................................................................................................... 24

Table 3.8: Resolution ......................................................................................................................... 24
CHAPTER ONE

INTRODUCTION

Mobile technology has become a dominant factor in business, academia, and everyday life. E-commerce and e-services are fueling a market sea change, with practically any business anyplace nurturing its equivalent on the Internet.

The tremendous evolution in mobile technology make it necessary for the companies to benefit from this development in the process faster access to customer and marketing process rapidly using this technology.

According to McManus and Scornavacca (2005), many of wireless technology developments such as mobile phones and other have created a new way to communicate via multimedia or computer networks. In the world of marketing this development leads the companies to find new marketing channel or media such as SMS and MMS, this media rapidly increase the way to reach to the consumers (Heinonen & Strandivk, 2006).

Today e-business has emerged as a mainstream way to facilitate business transactions around the world (Westermeier & Plave, 2004). According to Duhl (2003), “The Internet has emerged as the default platform for application development.”

According to Westermeier and Plave (2004), “E-business allows parties to buy products and services using the internet. It is a broad grouping of activities that allows products and services to be selected, purchased, received or serviced using electronic based technologies”.

1
The contents of the thesis is for internal user only
References


entity+relationship+mat&fp=8ec9ea851cee2c5b