

SMART MOBILE ADVERTISER (SMA)

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ABSTRACT

Nowadays, mobile phones are widely use in our daily life and most of us cannot avoid from using this new technology. When the mobile phone is connected with the internet, it will be a very powerful device where user can receive or send any data from the internet anywhere and any place. Because of this factor, Smart Mobile Advertiser (SMA) is developed. SMA is an application that can involve in mobile user advertising activities and make it more interesting. SMA can help user to register as a community and store all their advertising records. The system Development Life Cycle (SDLC) methodology has been chosen for development of this. This system is using a distributed system concept which involves three items such as web services, server (SQL SERVER 2005) and PDA or hand phone that have a window mobile 5. SMA brought together the technologies from Microsoft.NET 2003 which is the MS.NET Compact Framework in particular, Microsoft SQL Server 2000 as the central database and XML as a persistent database in the hardware (PDA).

ABSTRAK

Pada masa kini, telefon mudah alih menjadi alat kegunaan harian manusia dan kebanyakan daripada kita tidak boleh lari dari kemodenan ini. Apabila alat ini disambungkan kepada internet, ia akan menjadi satu alat yang amat berkuasa dan tidak terhingga di mana pengguna boleh menghantar dan menganbil mana-mana data dari internet tisk kira tempat ataupun masa. Melihat daripada kelebihan itu, *Smart Mobile Advertiser* (SMA) telah dibangunkan. SMA adalah sebuah applikasi yang boleh membantu pengguna aktiviti pengiklanan pengguna mobil menjadi menarik dan bijak. SMA dapat membantu pengguna untuk mendaftar menjadi ahli dan menyimpan segala rekod pengiklanan mereka. *System Development Life Cycle* (SDLC) telah dipilih untuk pembangunan sistem ini. Sistem ini akan menggunakan lokasi yang banyak untuk memindahkan maklumat dimana tiga objek terlibat iaitu web service, pusat maklumat (SQL SERVER 2000) dan PDA yang mempunyai window mobile 5. SMA dibangunkan dari teknologi Microsoft.NET 2003 amnya dan khususnya dari MS.NET Compact Framework, Microsoft SQL Server 2000 akan bertindak sebagai pusat maklumat dan XML sebagai data sementara yang wujud di dalam PDA.

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LIST OF ABBREVIATIONS

SMA	Smart Mobile Advertiser
PDA	Personal Digital Assistant
SOMA	Smaato Open Mobile Advertising
IHG	InterContinental Hotels Group
API	Application Programming Language
PCR	Priority Club® Rewards
SD	Secure Digital
WSDL	Web Service Description Language
UDDI	Universal Description, Discovery and Integration
SOAP	Simple Object Access Protocol
SDLC	Systems Development Life Cycle
SSADM	Structured Systems Analysis and Design Method
UML	Unified Modeling Language
SQL	Structured Query Language
IIS	Internet Information Services

CHAPTER 1

INTRODUCTION

This chapter provides a brief overview of the entire project include objectives of the project, scopes and problem statements.

1.1 Introduction

A mobile phone or mobile (also called cell phone and hand phone) is an electronic device used for mobile telecommunications (mobile telephony, text messaging or data transmission) over a cellular network of specialized base stations known as cell sites. Mobile phones differ from cordless telephones, which only offer telephony service within a limited range, e.g. within a home or an office, through a fixed line and a base station owned by the subscriber and also from satellite phones and radio telephones. As opposed to a radio telephone, a cell phone offers full duplex communication, automates calling to and paging from a public land mobile network (PLMN), and handoff (handover) during a phone call when the user moves from one cell (base station coverage area) to another [1].

As the mobile devices technology grew more advanced recently, the application itself has its own part. Of course, the mobile devices will no function without its application. The application technology in the mobile devices is important and many researcher and innovator are in challenge to develop a better and more useful application. The application will help user to manage and do their daily routine life activity beside messaging and video conferencing.

Our daily life activity such as in property business also is getting easier by using mobile technology. An application is designed to estimate budget, calculate and select desire property location, selecting best offer and buying, keeping property list and also can give opinion or decision support in order to make mobile user life easier and better in the future.

Smart Mobile Advertiser (SMA) is an application using mobile technology which is can communicate all users in advertisement sector. By using this mobile services can help mobile users to find their interest location in Malaysia.

1.2 Problem Statement

This system is developed to solve the problems that usually happen in real advertising world, all business is done manually which is no record have done on computerize or on mobile technology. So, they have many problems using this way. The statements of problems are:

- i. Many scams have done by people that want to take advantage from advertising approach. For example multilevel marketing such as Em-pay, Uptrend, DHCL and others that give a lot of effect on Malaysian.
- ii. Difficult for client to meet the dealer who is selling their advertising products. The impact, a lot of cost is used to find a good location for interested products.

1.3 Objective

The main objectives of this application are:

- i. To develop a prototype of Smart Mobile Advertiser Services and test the system to the Personal Digital Assistant (PDA)
- ii. To change from website style of advertising to mobile phone advertising.

1.4 Scope

The scopes of the project are:-

- i. The target for this application is more to advertisement via mobile solution. Service provides is like the 'www.mudah.com.my' which is the user can get information of advertisement.
- ii. Enhancement how the data transmit to system using web service.
- iii. SMA will be used in PDAs devices that focus on SMA client application only.
- iv. SMA can help user to register as a community and store all their advertising records. It also help user to find the advertisement resources according to the categories of products. All the entry, the choosing and the changing are all referring to the user satisfactory. SMA also can store all the data in one database

1.5 Organization of the Thesis

This thesis consists of six (6) chapters:

Chapter 1 explains about the project background of the system, and identifies the current problems. Thus an objective and scopes of the system were drawn in order to develop a new system which is more secure and reliable.

In chapter 2 the background information of the system that related to development of the project is studied and discussed. Review on the current examples of mobile application in real world today's.

Methodology is in chapter 3 which discuss the method that used throughout the project and define as a guideline in development of the system. During development and implementation of the system, some phases take into consideration such as project planning and requirement analysis, system design, implementation and testing.

Implementation is in chapter 4 which documented every process involved during the development of the project. Generally, it explains the development of the developed project and gives details on the data dictionary of database in the system.

In chapter 5, the result and discussion are presented in well manner, beside that; it shows the output of the new prototype system after the implementation. The strengths and limitations of the system are discussed as well as with the further research technique to enhance the prototype system.

Chapter 6 explains about the conclusion of the mobile development and its future expectations.

CHAPTER 2

LITERATURE REVIEW

This chapter briefly explains about the system that related to development of the project is studied and discussed. Review on the current examples of mobile application in real world today's.

2.1 Introduction

Before the project could be fully specified or planned, a considerable amount time is spent on the research part. This background research chapter will describe each relevant research aspect to appropriate depth. Figure 2.1 shows the flow of this chapter.

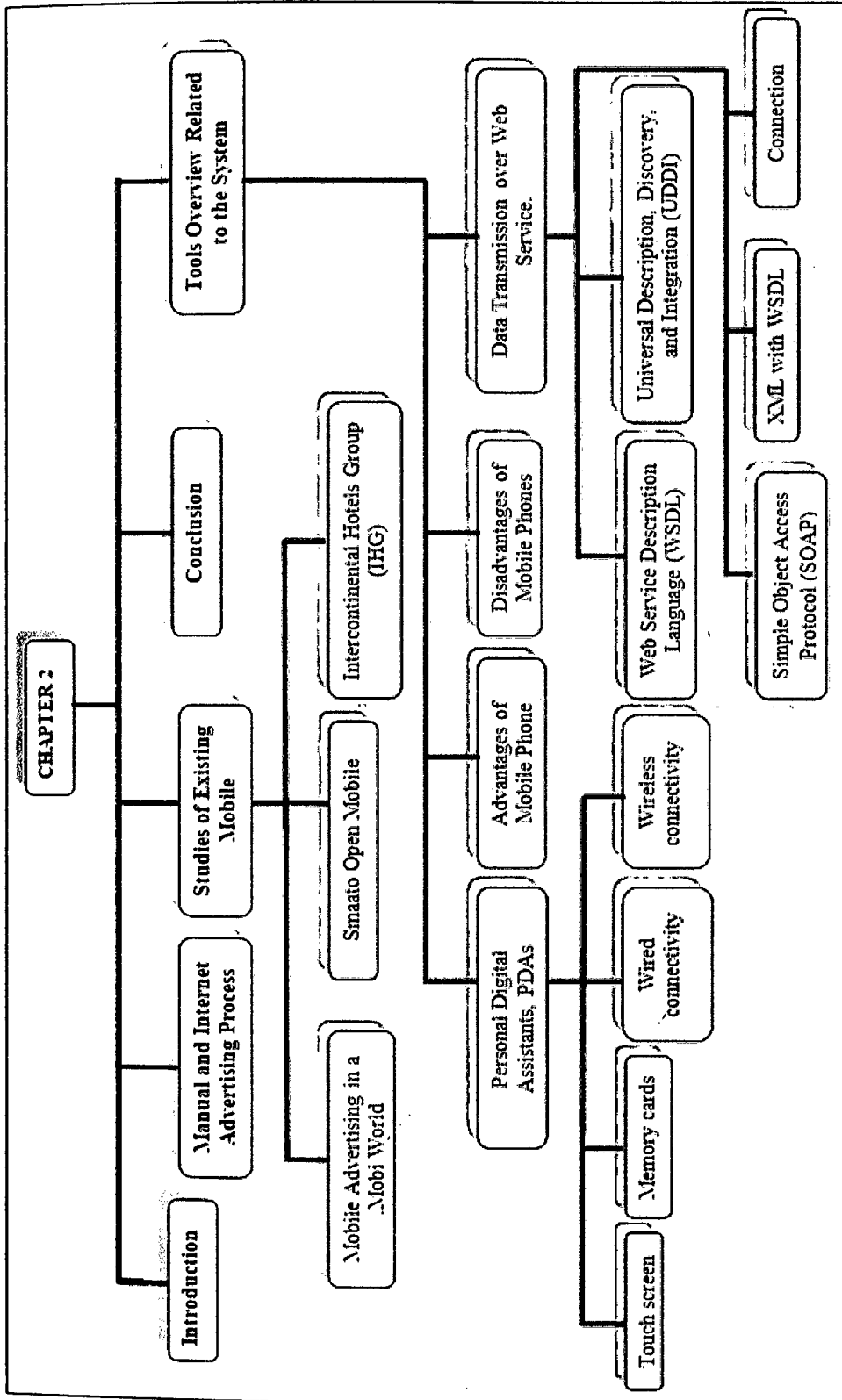


Figure 2.1: Flow of Chapter 2

2.2 Manual and Internet Advertising Process

This section will discuss on process of the manual and internet advertising in market. Although there are sample of existing mobile advertising in this document, notes that the environment of this development is in internet advertising or manual advertising such as banner side of road, banner approval by 'Majlis Perbandaran' according to states, so from this manual process still exist. Figure 2.2 shows the example of manual advertising.



Figure 2.2: Example of Manual Advertising (Banner)

Internet advertising is the process whereby a product or service is made visible to users of the Internet, usually via banner adverts placed on web pages. Figure 2.3 shows the example of internet advertising.

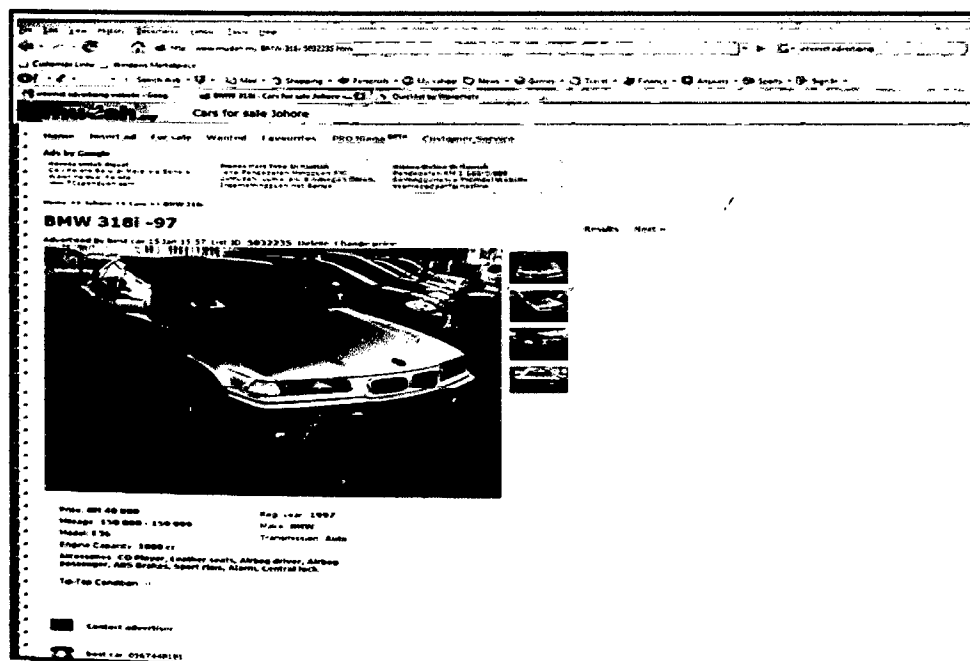


Figure 2.3: Example of Internet Advertising

According to current situation of advertising, many company have compete each other to provide good service. But from customer side they want to find a good service, user friendly, save their time and dynamic which is can stand in all type of environment. The flow of advertising begins by an advertiser want to make promotion of their products or services. Advertisers will find a company or corporate to promote about their ads for example from television, radio, road side and others. After deal with this type of company and get approval to advertise the product of services, they will produce content or design of product to show to customer.

Figure 2.4 shows step to advertisers apply and promote their products or services process. Firstly, advertiser adds advertisement content into website according to from needed. Advertise company such as 'www.mudah.com.my' company will check which is the content is valid or not. If not valid, advertisers need to apply again. If all content is valid it will be approve and display it via website.

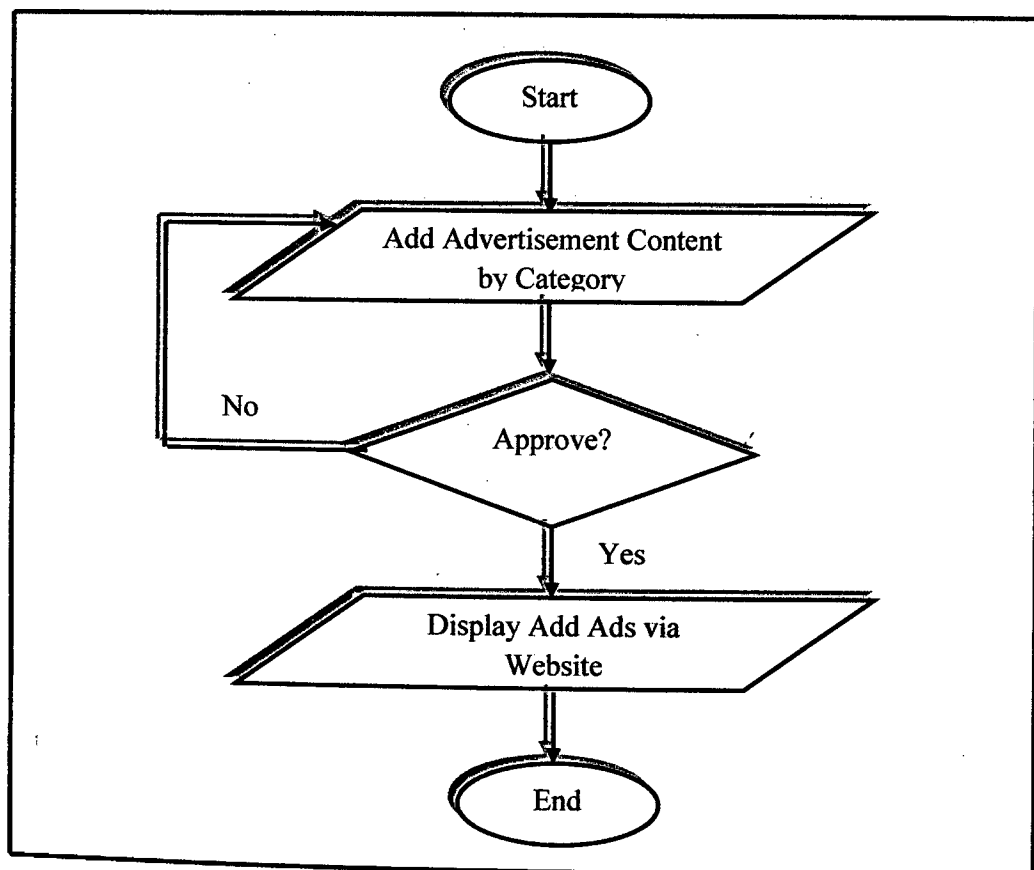


Figure 2.4: Flow chart of how advertiser advise their products / services

Figure 2.5 shows step Advertiser apply process. Firstly, customer or client will logon to website to find interested advertisement according to category. Then, they will compare which advertisement at same category is more interested and view all content of advertisement. If customer did not found the ads needed, they must find it back and view it again. After selection has made, customer can call direct to advertiser through provided email or phone number of the dealer.

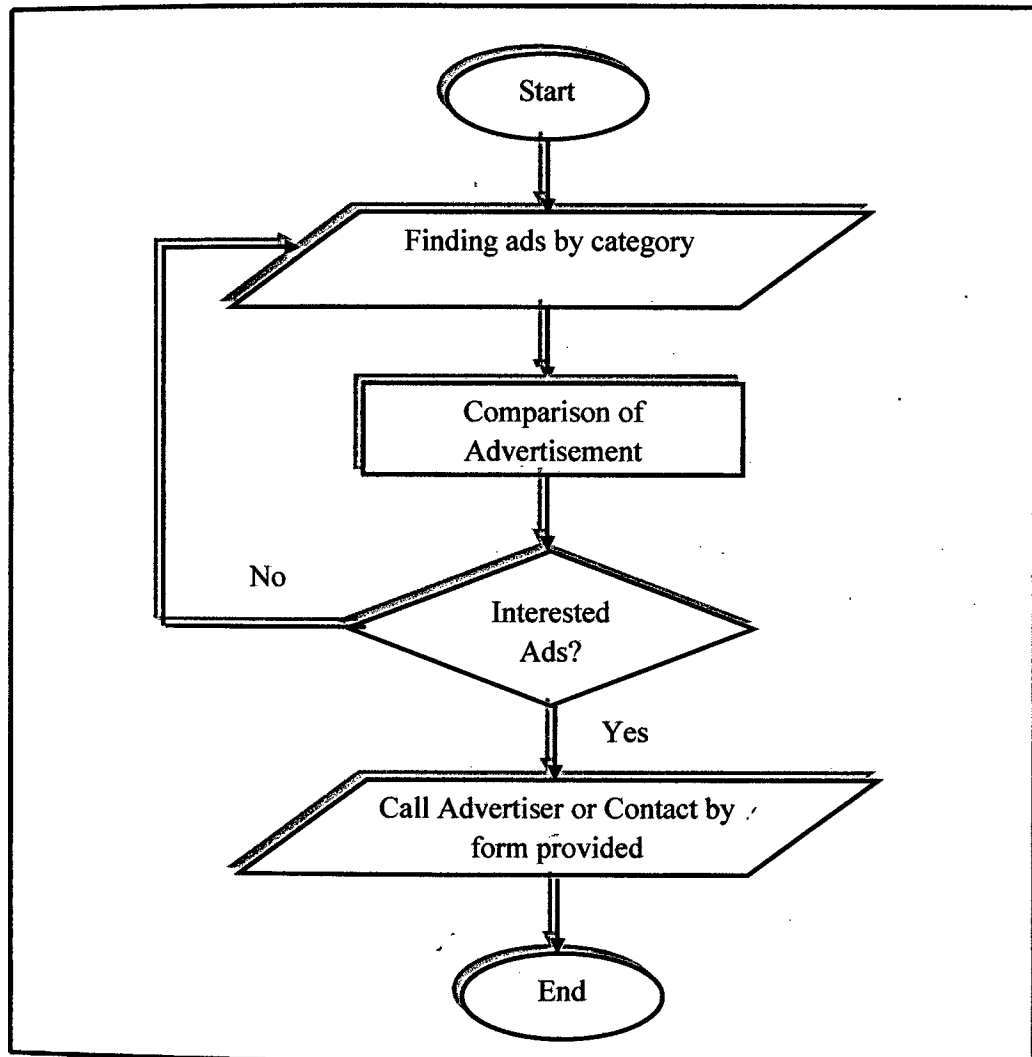


Figure 2.5: Flow Chart how customer / user to select their products / services

2.3 Studies of Existing Mobile Application

There are examples of the existing mobile applications related to my project that has built like Mobile Advertising in a .mobi World, Smaato Open Mobile Advertising (SOMA) and InterContinental Hotels Group (IHG). These applications build with same purpose that is for changing from manual to practical system and easy to analyze data of the system.

2.3.1 Mobile Advertising in a .Mobi World

The MAG Mobile Advertising Task Force was formed early in 2007 as a global forum to discuss any aspects of marketing or advertising through mobile consumer devices and to foster creative thought leadership towards accelerating the growth of Mobile Advertising through the forum members efforts [2].

Figure 2.6 shows the Mobile Advertising Ecosystem that consists of many participants. However, the primary players on the Mobile Advertising stage are consumers and the advertisers that desire to market their products and services to these consumers.

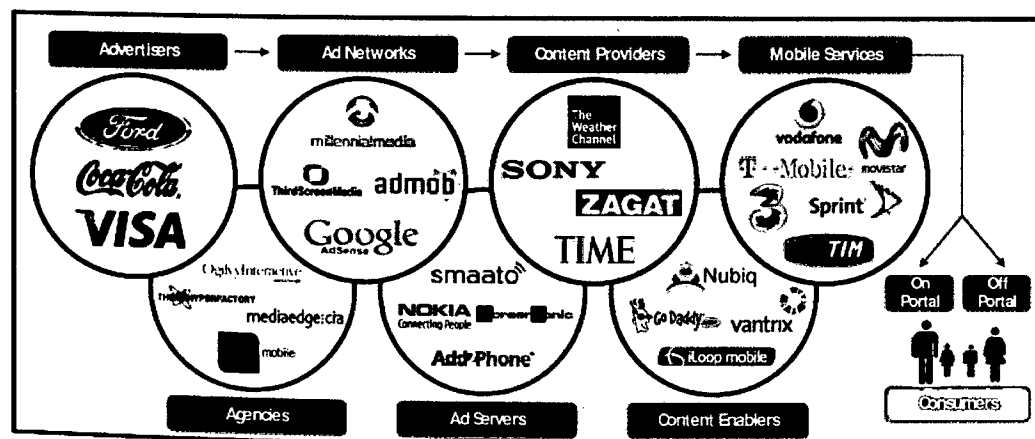


Figure 2.6: Mobile Advertising Ecosystem [2].

The scope and purpose of Mobile Advertising in a .mobi World is to share a global perspective of the Mobile Advertising marketplace and explore the emerging opportunity for marketers, brands, and advertising agencies to leverage the .mobi domain mobile web trust mark in the Off-Portal Mobile Advertising industry.

Figure 2.7 shows the usage of mobile devices such as cell phones and mobile web browsers to deliver these promotional messages. However, this high-level concept does not help to understand the opportunities and challenges that are driving so much activity and attention towards Mobile Advertising.

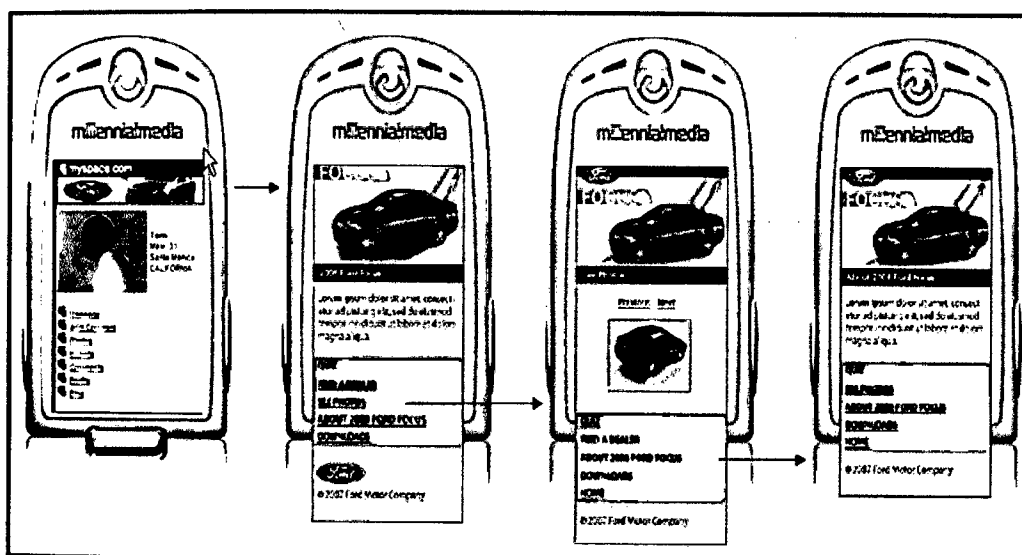


Figure 2.7: Mobile Advertising Example [2]

The .mobi domain trust mark, when enforced to dotMobi Style Guide domain policies, is well-positioned to provide mobile operators the Off-Portal Quality of Service assurances they need. It is also easily identified by their mobile Internet network service operations when requested by a customer to use on their mobile device. This process to ensure Quality of Service via .mobi domains could very easily be automated and scale for large volumes of made-for-mobile web sites by the mobile operators. Figure 2.8 shows the example of .mobi mobile advertising.

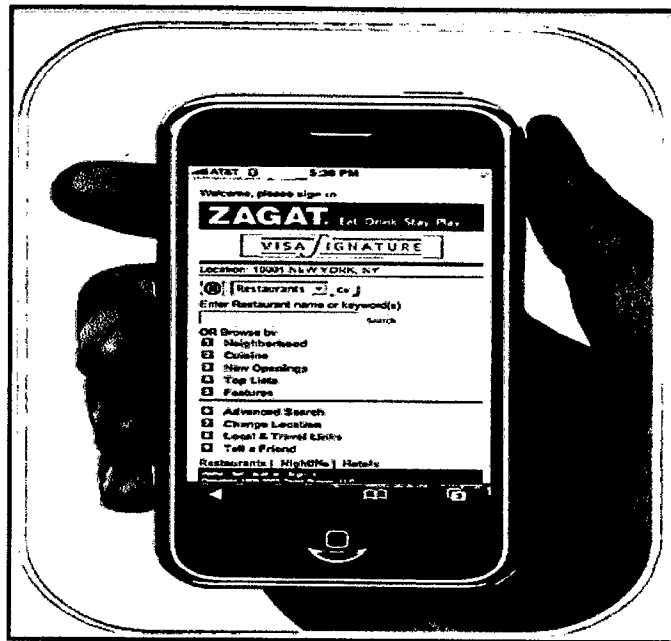


Figure 2.8: .mobi Mobile Advertising Example [2]

The forms that Mobile Advertising takes are in many cases similar to online advertising. There are display units such as text links, banners, and video ads. There are search models that enable text ads to be shown in response to keywords entered on user queries. There is a messaging medium that is much more instantaneous and personal than email, although not yet as rich. Additionally, there are models that are unique to the device such as use of the idle screen and click-to-call.

To accelerate the creation and adoption of a structured and profitable Mobile Advertising industry, the following ‘Next Steps’ and invites all Mobile Advertising Ecosystem industry actors to play a role in shaping the future of the mobile Internet.

- i. To define and publish a dotMobi Mobile Advertising style guide for agencies and brands; based on published MMA Mobile Advertising Guidelines;
- ii. To define, publish and enforce dotMobi Mobile Advertising best practices with mandated policies for .mobi domain-based Mobile Advertising offerings for the Off-Portal community;