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Mobile Advertising

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<p>The aim of this project was to get an understanding of how companies adopt mobile as an advertising medium. The literature review aided in framing a draft of the factors that affect mobile advertising adoption and possible forms of mobile advertising. Considering the scope of the thesis work, branding strategy, service costs, personalization and privacy and platform were considered to be the factors that could affect the mobile advertising adoption. A few possible forms on mobile device were derived to be short messaging service (SMS), mobile coupon (M-Coupons), location-based services, In-application advertising.</p> <p>To provide credibility to the project, case study was employed as the research strategy where the data was collected by interviews. The interviews were transcribed to serve as an input for data analysis. Data was analyzed using pattern matching and cross-case synthesis techniques. Based on their industry expertise Steam Communications and Luxus which has mobile as one of their advertising media were chosen as case studies. Relevance to the stated factors and forms of mobile advertising was analyzed and reported. Single case analysis was performed using pattern matching technique and an analogy was drawn that Branding Strategy, Service Costs, Personalization and Privacy were factors that affected mobile advertising adoption and forms of advertising on a mobile including SMS, M-Coupons.</p> <p>Since both the case studies were not established in location-based services and in-application advertising, no relevance was found with respect to those forms. Cross case synthesis between the two case studies further strengthened the hypothesis that Branding Strategy, Service Costs, Personalization and Privacy were the common factors that affect mobile advertising adoption and forms of advertising on a mobile including SMS, M-Coupons.</p> <p>However apart from the above stated factors and forms of mobile advertising both the companies stated that awareness of the potential and readiness of the market to embrace the latest technological integration to a mobile were additional factors that affected the mobile-advertising adoption. Possible other forms of advertising on mobile could include integration of videos, web and digitalized services.</p>	
Keywords	mobile, advertising, branding, SMS, location-based services, personalization, in-application advertising, mobile coupons

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Abbreviations

Ad	Advertisement
CPM	Cost Per Mille
IDE	Integrated Development Environment
GPS	Global Positioning System
GSM	Global System for Mobile Communications
LBS	Location Based Service
MMA	Mobile Marketing Association
NFC	Near Field Communication
RFID	Radio-Frequency Identification
SDK	Software Development Kit
SMS	Short Messaging Service
TCPM	Transport Cost Per Mille
USP	Unique Selling Point

1 Introduction

The purpose of the thesis is to analyze the factors affecting the mobile as a medium for advertising and to investigate various forms of mobile advertising. This chapter focuses on short general introduction to the mobile world followed by a literature review of the topic.

Today the mobile has gone far beyond being just as a medium of tele communication. It has become an integral part of everybody's life. It has taken various designations to itself as for example a style statement, truly personal asset, professional assistant and entertainment device. Right from waking up with an alarm call on mobile to driving the whole day for reminders, mails, keeping active in the social network, travel guidance, stock and weather updates, entertainment through games, video and TV – the mobile has become the most primary source of information. It would be apt to think of it as a device that makes one stay connected anytime and anywhere, of which voice is just one component. It provides people with a novel way of satisfying their needs to communicate, to stand out from their peers and to stay informed.

Mobiles seem to intrude into many more aspects of the digital world showing the light to plethora of business opportunities for all the key players in the wireless technology such as phone users, network operators, access providers, content providers, corporate organizations, marketing and media agencies, mobile consultants, application developers, venture capitalists. Each of these players is inter-dependent to reap the maximum benefits from the wireless world. For example, application developers and the corporate organizations are mutually dependent on the profits on the application sales. It is also worth noting that there are various players below the network operator level offering similar services, so to get the most from access and platform providers, it is best to consider a number of different options. [1, 15]

The explosion of wireless technologies has really lifted mobiles to a different era. It is no more limited to just the telecom world, but has gained the pivotal presence also in

other industries such as banking, journalism, education, health industry, defense or retail. Almost anything can be turned into *Go-Mobile* these days because of the extensive growth in the mobile application industry. The advent of a wide variety of smart phones, a necessary telecom infrastructure such as 3G networks and high-speed Internet connections, corresponding portable development technologies, different models to purchase such applications (such as free, premium, paid) lead to extensive expansion. [2, 4] This vast intrusion of the mobile application world into the mobile has left opportunities for advertising.

Social networking sites are another medium where most users are always connected. Users tend to look for tweets and Facebook updates periodically. Running promotions through social media campaigns targets not only customers accessing them through mobile applications, but also from the traditional websites. The promotion of an advertisement can be much faster here as it often leads to spreading across one's own network. A product recommended or liked by a friend can be bought much more easily than showing the same through a banner popping up on an application inside a mobile.

Advertising is a phenomenon of engaging customers to getting involved, purchasing or responding to a service, product or an idea. For the past few decades, the traditional advertising media such as print, television, radio, and the web have been successful with banners, videos or jingles, but the situation has changed lately. Broadcasting a message with postures all around the city or playing a video once in 10 minutes within a TV commercial is no more giving profitable returns. The customer needs to be engaged with a constant dialogue and more personalized communication.

The players in the wireless world are now seeking for new revenue models with cheaper investments and quicker returns. Mobile advertising seems to provide an answer for that because of the following features [7, 19-21; 14]

- Faster user growth
- Immediate response
- Personalized communication
- Eco-friendly
- Location-based services

The mobile as an advertising medium not only provides the above features but also has advantages over other media such as omni presence, eco-friendliness, long lifetime of advertisements, incentives to customers for using the advertisements or integration to other media. Traditional media can also be well blended and extended to the mobile media for an advertising campaign. A few such examples include cases when a user clicks on a link in the Short Messaging Service (SMS) and it opens a web page with many more advertisements in it (mobile and web), types in a code to vote to one's favorite singer (mobile and TV), scratches a voucher and send a text message to the number mentioned to win a prize (mobile and print).

There is a need to analyze the extent to which advertisement can be integrated to mobiles. A few users might see an advertisement as an interruption or distraction. Not everybody would like to see banners and pop-ups for every feature they access on the phone, or get flooded by SMSes the whole day. A frustrated user may never be bought back to use the service again. It is easier to lose a customer than to make one. Since most of the mobile advertising campaigns often lead to viral marketing, there is a huge chance of loss propagating also to other customers too. Hence advertisers need to be extremely careful with their modes of operation. They need to tap on the perfect balance between the promotion of advertisements and usage of the service or application.

Adhering to the guidelines laid by the Mobile Marketing Association (MMA) and adding more value to the service through a non-intrusive approach, satisfying the needs and demands of a customer might be a desirable way to improve the customer database. One such form of advertising that helps this approach is **permission-based advertising** where the user opts in for a particular service and permits the advertisers to reach him/her through offers and services. However not all advertising campaigns can be turned permission-based, for example when launching a new brand or new service, it is often the situation that there is no customer base who can opt in. So, the advertising methods need to be adapted to the type of campaign and form of advertisement chosen.

Furthermore, the approach towards selling software has been changing. It is not about the relationship between just the producer and the consumer. There are more parts of

this system now. Companies are striving to move towards more than just delivering the product - the organizations are now investing huge sums on building their own ecosystems. The critical components of the ecosystem are the producer, consumer and the advertiser. Using and increasing the existing customer database incorporating this third leg of advertising with a minimum investment and maximum profits in the ecosystem is the driving challenge for mobile software companies. Organizations are now looking for a new way of engaging their customers, without disturbing the existing relationship. The creation and launch of advertisements is a critical component in making the third leg stable in the ecosystem. There is a need to analyze the causes and effects of this change.

Hence, a study on factors that could affect the mobile advertising adoption and investigating various forms of mobile advertising is an interesting topic that might help organizations in mobile business. These aspects are explored in the further chapters.

2 Literature Review

This chapter aims to investigate more into the topic of the study and provide a literature review on the issues to be explored in the future chapters.

Based on the discussion above mobile advertising seems to be a promising industry in the advertising business. The above chapter introduced the need for mobile advertising by throwing light on impact and usage in advertising world. Exploring further, the thesis aims to find a few factors which need to be considered while choosing mobile as the medium of advertising.

A normal user who opts in for a service might be interested in the various factors of advertisements such as **brand**, incentive to use the ad, personalization of the ad, frequency and lifetime of the ad on the mobile. A logo of a known brand would drive a user to click on the banner rather than an unknown pop-up. For example if a Red Bull icon can be placed on a game to re-fill the energy, it would attract the customer more than a simple progress bar. Of course, the expense of clicking such icon needs to be well informed to the user. Consumers with corporate accounts or those whose ac-

counts are subsidized by their employer are significantly more likely to use the browser on their handsets, compared with subscribers who are personally responsible for the bill [1, 11].

As discussed in chapter 1, the expansion of mobile application industry and the social networking sites have lifted the wireless technologies to a different era. Advertising through social networking sites is often viral and the make or break of a service can happen within no time. Adding another perspective to this, people tend to share their personal and professional interests and activities in the social networking sites. So, it might be an interesting opportunity for advertisers to use this database, firstly to launch a new service, and secondly, to **personalize the advertisements** for their customers, based on their habits, interests and location. For example, if customers registered their personal details such as hobbies, favorite movie stars or sports interests etc. it might be an attractive feature to track such details and send personalized notifications as an SMS/pop-up. They could be, for example, of the next available show time of one's favorite star when the user is near the movie theatre or happy hour notifications.

To provide such a support of location-based services, there needs to be a necessary infrastructure (such as high speed networks and latest handsets) available in the country. Not all parts of the world are developed to that extent yet. All the features cannot be made global either, as the same element is looked at differently in different cultures. Promoting a beer through a game targeted at teens might become popular in western cultures, unlike eastern culture where it is still perceived as a taboo. However, globalization in all industries will lead to cultural exchange across the world making it not a barrier anymore for any industry.

With a plethora of smart phones available in the market, it is a challenging aspect for developers to write applications that would suit every device. However, there have been various tools and common platforms that solve this issue to an extent. The type of **platform chosen** to develop the advertisement also enhances the scope for the richness and reach of the application. Ultimately it is the user interface and the experience of the game/ application that accounts to a user. The availability of the tools, ease of use of the respective software development kit (SDK) plays a critical role in the turn-

around time for an idea to an application. Also, once the application is developed, the ease to upload it to the application store and the business model to promote that mobile application will also be one of keen aspects that developers today are looking for. Hence, the kind of platform chosen for development of an advertisement has a cascading dependency on the type of application that can be developed and in-turn respective application store which would yield the respective profits.

Consolidating the discussion above, it seems that *a portable (that can run on any platform) application of a known brand which is free to download and can be sent to every customer through a personalized SMS is a potential candidate for the mobile advertisement*. This is because - dissecting the statement - the application is portable implies it crosses the *platform* barrier, and of a known brand barring the *branding strategy*, free to download – so *service cost* is ruled out and is received through a *personalized SMS*. It covers almost all the critical factors discussed so far that can affect the mobile advertising strategy.

There could be other factors such as regulatory law in countries, mobile penetration, the eco-system of services (for example the services integrated from a handset to a tablet to an application store). However considering the limitation of the scope of the thesis work and referring to the paragraph above (dissection of the statement) - branding strategy, service costs, personalization and privacy, as well as choice of the platform will be taken as the factors affecting the mobile advertising strategy, which will be discussed further in chapters 3 and 4.

3 Factors Affecting Mobile Advertising

3.1 Branding Strategy

Organizations are often dependent on their brand name either for acquiring new customers or strengthening the relationship with the existing ones. Users often tag a product to the brand name. For example, in the earlier days mobile phone users in rural India went to a mobile store and asked for a Nokia instead of a mobile phone. People even today say Xerox instead of photocopy. To reach such a level of imbibing a product in a brand does not happen in a day. It is possible only through continuous commitment to quality and constantly engaging customers while satisfying their needs.

Interaction through mobiles makes a deeper connection and valuable impression. Providing incentives to users who forward mobile advertisements to their friends and network will help in improving the customer database. Citing an example for this scenario -there was a well-known hair dressing brand that was opening its 287th salon in the UK. The particular problem in this case was they had no track record, but the brand had a significant recall. They made an offer for a free hair cut to the first 20 people who would arrive at the salon on the opening day and further 50 free products. This went as an SMS to a database of 500 people, out of which 300 turned up and a third of them also booked appointments for the future. [1, 42]

With the technology advancements in the wireless field such as rich media interaction, digital imaging, location-based services and embedded devices, some products are well suited to be advertised through mobiles. If a sales person can show a mobile video clip on how a vehicle performs off-road during winter, the chance of closing a sales case will increase [1, 45]. Turning one's mobile as a remote to switch off electronic appliances at home might be a Unique Selling Point (USP) and open up a new way to sell the product. The exploration of wireless technologies have made the world stay connected. Mobile phones surpass the barrier of physical communication, but then they also compensate for the emotional and visual value of it to a large extent. Mobile phone manufacturers and operators are the major players who tap on this functionality to promote one's own brand - they attract the customers by providing applications that

can make video calls, upload images and share files and documents all for free for their users in their user's network. Of course the revenue generators here are the network providers and advertisers who pitch in for such applications.

Another form of brand strategy - to expand the portfolio of products and services, recruiting talented leadership and most importantly to get branded, most of the smaller companies tend to merge with bigger brands or rather bigger organizations tend to acquire smaller companies to expand their workforce and thereby provide more products or services. Joining hands with stronger players in the market not only helps in standing in a tough competition but also provides a spike in brand promotion and widens the scope of services that can be provided. A few such examples include Microsoft - Skype, Google - Doubleclick, Twitter - Tweetdeck, and Google - Youtube (Appendix 1)

Consolidating the discussion, running SMS campaigns widely, embedding the brand in new applications or integrating them into branded applications and integrating the usage of electrical appliances/gadgets to mobiles might add a new dimension to brand promotion. All the factors discussed so far are summarized in figure 1.

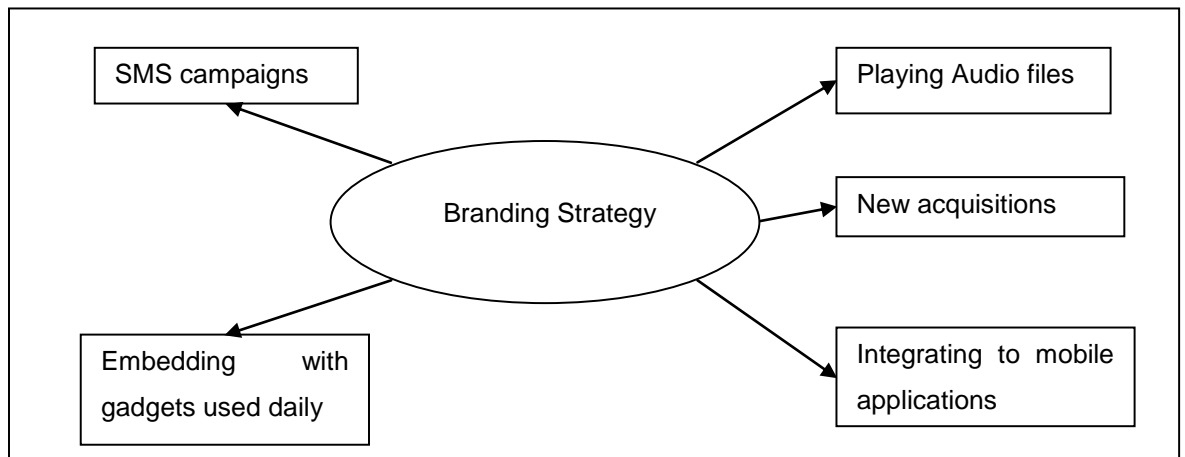


Figure 1: Branding Strategy as a factors affecting mobile advertising adoption

As illustrated by figure 1, whether the goal is to acquire new customers or strengthen the existing ones, to have a brand or sales promotion or to launch a new service, adding the mobile dimension to the brand-building campaign is an effective and interactive

way to organize the campaign. It helps in getting the instant response and provides a channel for customer follow-up [1, 43].

3.2 Service Costs

Gone are the days where the mobile phones were used just to make calls and send SMSes. The gamut of mobile phones has now extended to incorporate email, Internet, music, video, games, rich applications, extensive memory and possibly all the functionalities of a personal computer. The phones with all such additional capabilities are called smart phones. There are two factors that can influence the cost of a smart phone: first, the price of phone itself and secondly the cost of data plans. Obviously, the lesser the cost, the more affordable it turns out to be for more segments in the market. In most parts of the world, private access to the Internet is through a smart phone. People might pay for this as long as it comes in affordable range.

Unlike the traditional wired Internet, mobile advertisements need to be transmitted through air which incurs costs, and the delivery charges cannot be pushed onto users as it might most likely result in rejection of advertisement. However if the operator takes the responsibility of those charges and provides users with an *all-you-can-eat* data plan, the operator does not receive any compensation and only content publishers realize the ad revenues. Hence operators need to steer the model for the transmission charges and provide a plan that generates income for them. [1, 25-26]

The cost calculation used in the Internet advertising industry is cost per mille (CPM) – It is the cost to the advertiser for placing 1000 impressions of an advertisement. For example, if a website sells banner advertisements for a \$15 CPM, it means that it costs \$15 to show the banner on 1000 page views. In the mobile context this is measured as transport cost per mille (TCPM), which is calculated by the average size of a given advertisement type, multiplying by 1000 and then multiplying by the transmission cost per byte.

$$\text{TCPM} = \text{avg. size of given ad} * 1000 * (\text{transmission cost /byte})$$

These TCPMs vary depending on the type of the advertisement chosen.

Table 1 shows TCPMs for various types of mobile advertisements

Table 1: Mobile Transmission CPMs for various ad types. Reprinted from [3]

Media	Size (MB)	Duration (mins)	Transmission CPM
Text Ad	0.00	N/A	\$0.02
JPEG Banner Ad	0.02	N/A	\$20.00
Flash Banner Ad	0.04	N/A	\$35.00
QCIF Video Ad	0.14	0.5	\$136.00
Audio Ad	0.47	0.5	\$469.00
QVGA Video Ad	1.14	0.5	\$1140.00

As can be seen, TCPM of \$1140.00 for a 1.14MB video ad is clearly problematic. Also it is most likely that the transmission costs can consume 50% or more of the total revenue. Hence applying the Internet-centric ad models does not suit the mobile networks as the profits will be reaped by publishers and ad networks unlike the operators and subscribers. The Roundbox suggests a solution for this by publishing a broadcast server and broadcast network controlled by the operator, whereas the advertisement cache and advertisement engine reside in the mobile terminal. [3]

Another way to attract customers to surpass the service costs barrier is to provide incentives to users for using the advertisements. For example: get a free coupon for each SMS forwarded to their friends and the network would increase the customer database exponentially within no time. The question then in this context is where to get the money from to provide such incentives. The operators can also steer their business model and make publishers and content providers to be revenue generators. Figure 2 summarizes the above discussion

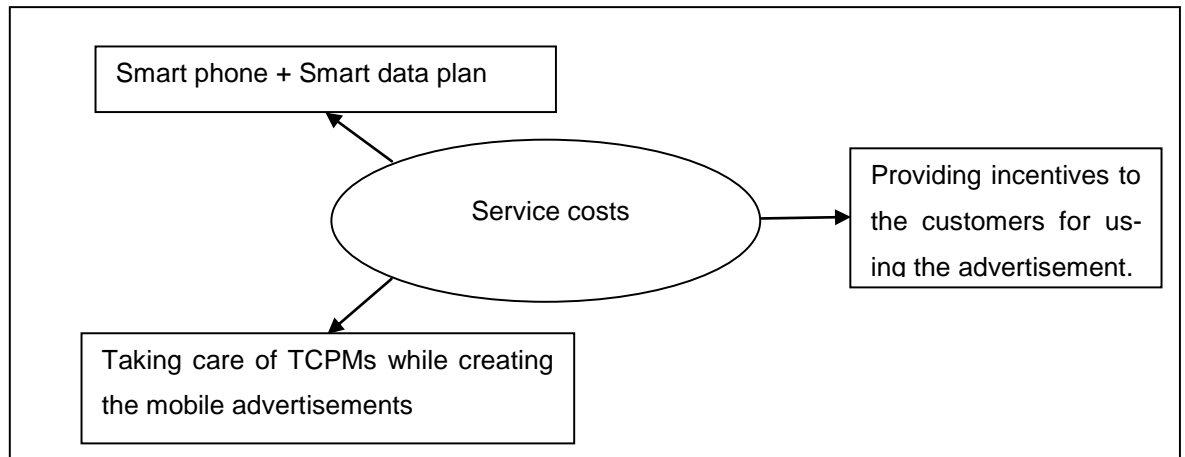


Figure 2: Service costs as a factor affecting mobile advertising

As illustrated by figure 2, a few ways to minimize the service cost as a barrier might be to provide a smart phone with an efficient data plan, tag the advertisers for the minimal cost on the type of the ad and publishers for providing incentive to the customers for using the ad.

3.3 Personalization and Privacy

With the mobile as the truly personal asset, users are skeptical to share their mobile information with anyone unless they really see a need for it. Though personalization is considered to be the attribute for the mobile advertising, it is a challenge for advertisers to get the database of the users for which the advertisements need to be personalized. Also not all users are alike; one promotion model cannot be adapted to all target groups and all at the same time. For example recipe advertisements cannot be sent to working people during office hours or professional tips during dinner time. For people working in shifts these timings might be totally different. Most users might want to choose what they want to receive and when they want to receive messages/notifications/advertisements on their phones. So, the time and extent to which advertisements can be personalized gain one's own weight in the mobile ad. However for an already established customer base it might be easy and cost-effective to broadcast a notification rather than personalizing every message. Based on this generic behavior there are two methods of advertising used in the mobile world: push advertising and pull advertising.

In the context of an established relationship, push advertising involves sending unsolicited messages to the mobile user. The user has not requested for any specific information yet receives notifications from the publisher. However, the user has opted-in to receive those messages. In the contrast, pull advertising user requests for specific information from the publisher. For example, a user might pull in for a stock report, whereas he might be pushed on various stock deals. [4] Pull advertising would also cover most of the privacy issues and at the same time pass on the control to customer for personalization. Usually push campaigns are used to build the customer base and then the rapport is made from the advertisements through pull advertising, resulting in a mobile advertising dialogue.

M-advertising should now focus more on customizing the advertisements based on user past behavior and preferences and must be more adaptive in nature, considering parameters such as age, gender, business, location, mood. For example, if a user is replying to emails, maybe he/she is working and browsing for music files, implying the user is in a relaxing mood. All these dynamic factors needs to be tracked over a period of time to build more personalized advertising offers for each individual, industry or a set of subscribers, and only the most advanced technology is needed to make it happen. Customization to such a level might leave privacy at risk. Satisfying both privacy and personalization concerns are like walking on the edge of a wall. Adult professionals today might prefer to go for a mobile banking whereas a grandmother might not be aware of how to do it or is scared to do it due to the feeling of a sensitive information breach. There might be several users who are unaware of secured URLs, protocols and the users will not know where the information is stored and what level is it processed. If the user receives a mobile receipt on the purchase done using a credit card or a mobile coupon, where are the card details stored? What is this information further used for? Who else can access it? are the usual questions of a normal user. Unless the details are coming from an authentic source or known brand and are clarified prior to receiving such notifications, and unless the user is well informed of the methodology of processing such requests, it is hard for a consumer to accept it and adapt to such services. If the policy rules are not clear, users might provide wrong details or choose to remain anonymous, resulting in a loss in data mining efforts.

Also there should be a consent taken from the customer before forwarding the push messages. Only after the users opted in and acknowledged to receive messages, they should be included in the push-list. The more the control can be transferred to the consumer with an option to customize the ad and choose one's own privacy settings, the safer it will be to implement the advertisement. For example, giving preferences to choose the kind of notifications one wants to receive and the timings at which those notifications should be delivered might be the basic choice that a customer would like to make in the case of personalized messages. Aggregating user data, where the user can modify the data at any point and allowing advertisers to use it for optimization and promotion of advertisements delivers the best of both worlds to all the players. Hence, using the appropriate advertising mechanisms with the consent of users and clearly stating privacy policies prior to opt-in might help users in having control over their data and aid advertisers in better promotions.

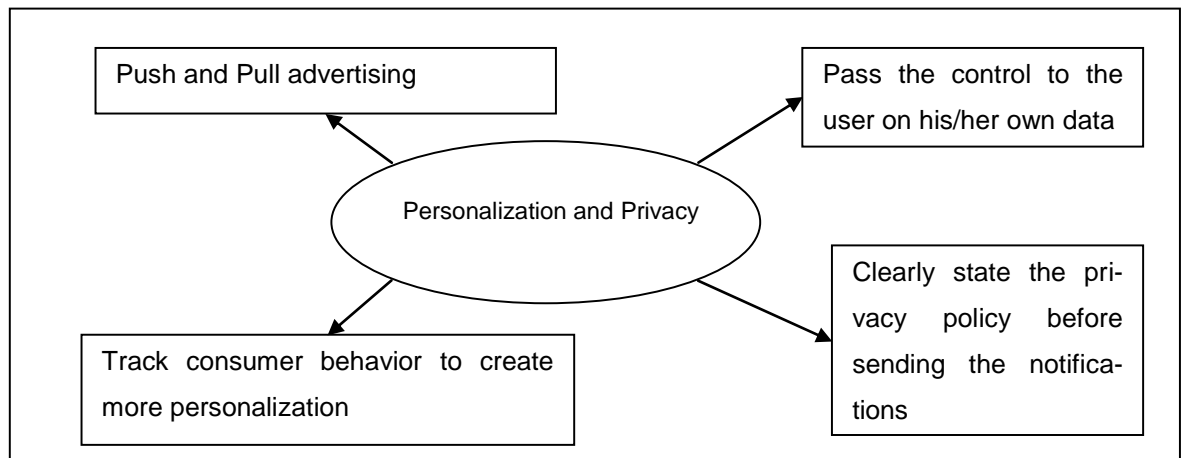


Figure 3: Personalization and Privacy as a factor affecting mobile advertising.

Consolidating the factors discussed so far and described in figure 3, it can be concluded that combining the push and pull advertising mechanisms effectively so that they can result in a mobile dialogue, giving the user enough control on his/her own data, and stating the privacy policies clearly before the opt in, might aid in the better personalization and not at the cost of privacy. Of course, development of such advertisements is dependent on the platform chosen and the extent to which personalization can be possible, which is explored in the next section 3.4 **Platform**.

3.4 Platform

Platform in this context refers to the type of ad, type of handset, ad network, and type of development technology chosen to develop the mobile ad. Plethora of smart phones and the choice of various technologies for development of mobile advertisements had left the developers in confusion. Choosing a platform that would suit all models is not an option. Developers today are looking for unified toolkits that would enable easy development of advertisements that would suit all handsets. Of course the choice needs to be made based on the *type of advertisement* (web banner, web poster, in-app, SMS, M-Coupon), size of the ad, purpose/scope of the advertisement, *type of handset* (basic phones or smart phones), payment model (free, paid or premium), and scalability.

However, given the specification of the ad, the next challenge is to get the right technology for development. The diversified device market has diversified development tools. All vendors have their own Integrated Development Kit (IDE), Software Development Kit (SDK), emulators, development tools and performance analysis tools. Examples are Nokia's carbide tools for Symbian, Silverlight platform for Windows, Eclipse and Java tools for Android, Blackberry. However thinking from a developer's point of view, it is laborious to re-write the same application for different devices. With the advent of code-converting tools, scripting and portable language, cross platform compilers it became easy to an extent. Building one's own ecosystem - as in integrating the services and applications of a laptop, desktop and gadgets with one's own mobiles has lifted the challenge to a different level, which has led to the invention of web technologies which have surpassed this barrier from a different angle. Responsive design helps in customizing the features for a mobile. The term responsive is applied mainly when considering a website's speed. When browsing or shopping on the go on a mobile there might be barriers such as the responsiveness of the site, Internet speed, scrolling on the pages or screen resolution. Websites are now investigated for its mobile friendliness and responsive design aids in the implementation. Opting a responsive design strategy might lower the burden for the developer if the design decisions are clear at the early stages. Once a design is implemented, it can be extended to other platforms such as desktops or tablets, as it might involve only minor customi-

zations on style sheets [18]. However, moving from the local computer to everything on the web makes the data to be accessible from anywhere. Cloud computing, HTML, and flash have banked upon that fact and enhanced the application development by incorporating features such as porting, richness and reach. Next level of advancement in this area is to have 3D applications on mobiles, which have started booming in the mobile gaming industry. This advancement will help businesses to reach out through augmented reality within games and will have lot of interaction for business and for collecting feedback from the end consumers within a single screen.

Also another form of innovation that is part of the booming industry is context and location based advertising. Developers might make the platform decision based on the number of screens they reach out, (such as tablets/mobile phones/laptops/PCs) with one single application reducing their development resources and optimizing business. Most of the tools today are open-source and the development here is done by developers who are genuinely interested in the technology. Hence the parameters of interest for them could be application performance, possible enhancements to be made, look and feel of the application, exploring and improving the technology. A survey conducted by skyhook technologies [2, 16] revealed that user interface is the top priority for developers when developing mobile applications. There are other factors such as ad quality, CPM, fill rate or SDKs which amount to the success of a mobile ad. As stated in Table 1, the mobile Transport Cost Per Mille (TCPM) will vary depending on the type of ad chosen. Fill rate is the percentage of inventory that an ad network or ad enabler is able to fill with advertisements. Novice developers might compromise for revenues or ease of use, but would rather look for ad enablers who would increase the fill rates to expand their ad network. Developers getting sponsorship or integrating to branded applications might aid in higher CPMs. User experience could be dependent on the type of technology chosen to develop the application, whereas the CPM, reliability and SDK are based on the handset provider and are specific to ad network partner [2, 9]. Hence, developers and the advertisers are mutually responsible for enriching the quality and usability of an advertisement.

A mobile advertisement should aid the experience of the application and not be perceived as interruption. For example, just to enhance the experience in a game, refilling the energy in a body combat game can be shown through an animation of an energy drink rather than just placing the logo beside the progress bar. Another example in this context could be that break time between loading different levels in a game can be taken over by Kitkat animation or popping up a banner/jingle stating *Have a break, have a Kitkat*. After all, user experience is the first impression that the mobile advertisements make on the usability of the ad/app. However, considering the short term gains, in-App advertising might not be the best choice for every ad and every developer. However with the increasing smart phone mobile penetration and technology maturity, these investments in mobile advertisements might pay back handsomely in the long-term. [2, 19]

Once the type of ad is chosen, the challenge moves onto the next level of choosing the appropriate business model to promote the application. With paid applications the volumes will be lower, but the amount earned for every download is known unlike free applications where the volumes are higher and the amount earned can be credited to the number of advertisement impressions on the application/usage of the application. Applications that stay for a longer time and are more frequently used could be made free, whereas applications that are used only a couple of times after download and discarded after usage would suit the paid model. Mobile games are usually made as paid applications as the user might want to discard them after finishing the game, unlike the weather or social updates which are checked on a daily basis and thus could be made free. [2, 4-5.]

Platform as a factor can itself turn into a subject of study if the technology details and the performance of applications across various platforms are to be considered. But, limiting the scope of this study and based on the discussion above, it can be considered that it is the type of ad, type of handset and corresponding development environment (SDK), business model of promoting the mobile application (free/paid/premium), and the ad network/partner that can be constituted as the criteria for choosing a plat-

form when developing advertisements for mobile devices.

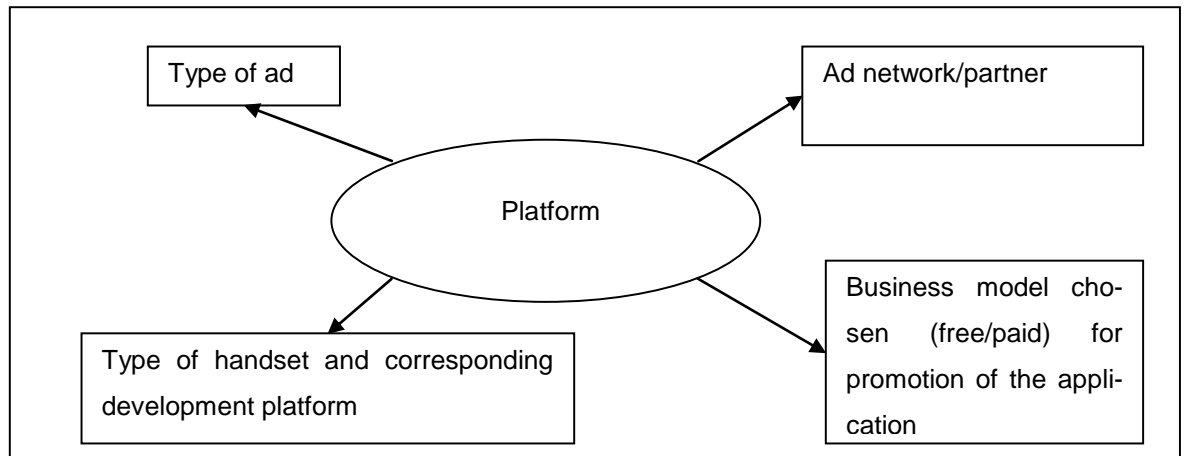


Figure 4: Platform as a factor affecting mobile advertising.

Having discussed the factors that can impact mobile advertising adoption, it is time to uncover and explore further to derive the possible forms to enable advertising through mobiles. Chapter 4 describes various forms of mobile advertising.

4 Forms of Mobile Advertising

Traditionally advertising was done through several media such as television, radio, billboards, newspapers, flyers, web banners, franchises or banners attached to the sides of automobiles, metro platforms, stickers on apples in supermarkets, additional messages on the back side of event tickets, bills, magazines, celebrity branding or word of mouth. Any place to grab the user's attention was chosen as a medium for advertising. This chapter aims to describe the possible forms of advertising methods that can be used if a mobile is chosen as one such medium.

User's attention could be sought through the features that a customer would access on the mobile. Few users might just restrict or rather prefer to use only the basic features such as call and messaging, while others might choose to explore further. Whatever might be the type of the user, the mobile could stand as better advertising opportunity as the numbers of mobile users are increasing at a fast pace [7].

To adapt the mobile as an advertising medium for the chosen industry and the factors that impact mobile advertising were discussed in chapter 3. As said before the mobile is not just a means of communication, but it is integrated to all the activities wherever information is needed, most importantly when the information is dynamic in nature. The way an ad is presented also has an effect on adaptation. Receiving a reminder on a day before a brand-launching event might be more attractive than sending the same through a postal letter a week before. With mobiles almost replacing and having the capability to integrate with other media, to reach all users at once and at any time, there are other features in the mobile phones and in respective ecosystem, which can be tapped by the advertising platform. A few of them are discussed below.

4.1 SMS

Just like any other medium of advertising, mobile advertising has forms, one of which is Short Messaging Service (SMS). It is the capability to send a short message of usually of 140-160 characters containing text and numbers. The first SMS was sent in December 1992 from a PC to a mobile phone on the Vodafone network. An SMS is made up of two parts: the first part is the message header containing the messaging protocol information such as sender's address, type of coding and message validity. The second is the body of the message that contains information to be transmitted. There are two types of SMSes – Mobile Originated (MO) and Mobile Terminated (MT). Message Originated are the messages that are sent from the mobile phone. These can be sent to another mobile phone, PC or a landline where as Mobile Terminated are the ones sent by a network to a mobile. [1, 19]

The details of a message sent/received are tagged to the mobile number making SMS as the identification entity, thus providing a scope to personalize the ad. This attribute of the SMS is usually used for acknowledgement or confirmatory messages such as payment received, aircraft check-in done and the boarding pass sent to the mobile as an SMS or movie tickets booked and the confirmation code sent on mobile. However, it is interesting to note that even with the limitation of just 160 characters, which is a very limited space to display anything; this form of advertising seems to be one of the most popular ones among mobile advertising [7]. A possible reason could be that it is a basic feature of any phone. If users has a mobile phone, they have the capability to

send a text message, virtually making every phone an avenue for mobile advertising. Also SMS is easy to use, independent of technology and type of handset, provides an option for the user to respond, or, to unsubscribe to the advertisement. Best of all, there are no additional downloads or installations needed which could be other factors contributing to wider usage.

Another feature of SMS is that it goes as a special notification to the user, for which the instinctive reaction would be to open and read it making the user go through the ad, rather than skipping it. As discussed in section 3.3 privacy is one of the factors affecting mobile advertising. SMS is one form which surpasses that barrier by passing the control to the user to read it at one's own time, either continue receiving alerts or unsubscribe at any point. Users have the privilege to use the ad whenever they want. It is not pushed onto the customer.

One of the recent trends in India in using this form of advertising is to provide incentives to users to use SMS advertisements. Most of the mobile advertising agencies today understand that with the service costs being a barrier to adapt to mobile advertising, users can be pulled towards their advertisements only if there is an incentive for the user to use it. Users might not be willing to pay if there is an extra cost involved in the advertisements that they receive. Though the pre-condition here is that the users opt-in for usage of such a service, most users might not prefer to receive an SMS unless it adds some value to their pocket or usage in daily life. Hence the trend has been to provide incentives such as receive some amount for every SMS they receive and every forward they make [5]. This seems to work because the advertisements are propagated not directly by the advertising company but from friends and family where the users are usually tempted to open the ad as it is referred to/by a person whom one knows or through people from the known network [5]. This way not only the existing customers are retained, but new customers can be pulled in. The negative aspect in this mode of operation is that users might concentrate just on forwarding the message, whereas the content of the message might be ignored.

An SMS can also be sent or received in bulk at once to / from a larger audience. This attribute is used by brands or television shows which would aim to reach a wider audi-

ence. A few ways where this feature is utilized is SMS voting, competitions, lucky draw or Quiz. These are contests in which users vote or respond by sending an SMS to designated numbers for their favorite stars, singers or participants. Brands also advertise through wall papers, logos, jingles, ring tones, all sent through an SMS to the mobile phones. Another variable in this form of advertising is through **Alerts**. SMS alerts can also be used in a mobile dialogue campaign. Basically in this model users register to a service to listen to seasonal offers, ticket sales, sport scores, stock alerts, weather updates or meeting reminders, to catch up with any such information which is dynamic in nature.

The SMS form of advertising can stand on its own or can be well integrated into other forms of advertising such as M-Coupons or Location Based Services (LBS). Location-based advertising can be used to send notifications non-intrusively to users using SMS. Happy hour messages or sales happening in the vicinity could be a few examples of where location-based services can become integrated into mobile advertising through an SMS.

Reminders are another form of SMS advertising. All the opt-in customers are usually registered to the service for a period of time within which several updates to the service can be pushed to users using an SMS. For example upgrading a service, renewal of a service, or meeting appointments can be a few scenarios where SMS advertising can be adapted. SMS form of advertising can be blended with other forms such as mobile coupons, also known as M-Coupons, to initiate a dialogue with the customer. In this case, the advertising agency is tied up with several popular brands or giant retail stores which offer a discount if the user presents a short message code or shows a coupon on a mobile. [5] Mobile Coupon form of advertising is discussed in section 4.2.

4.2 M-Coupons

Mobile Coupons are also called M-Coupons and are the electronic tickets that are delivered to the consumer's mobile phone, they can be exchanged for a financial discount when purchasing a product or a service. Earlier to avail a discount on the product, people used to take paper clips seen on newspapers or washing powder boxes. Then came loyalty cards and buy one, get one free discount offer. Similar phenomenon when adapted to the mobile domain transforms into M-Coupon.

The mobile phone might be one of the essentials that a user typically carries when on shopping or even otherwise. Hence M-Coupons or short codes delivered to mobiles are always present with the user as they reside on the mobile. Paper clips, voucher hard copies might be forgotten or not present with user when they are actually needed. M-Coupons are sent through SMS, MMS, Bluetooth, downloadable applications, banner advertisements or any other mobile means. Typical design of an M-Coupon includes offer, face value, expiration date, product logo and barcode.

M-Coupons are used to drive the traffic to the stores and leverage the distribution. They are usually used to launch a new product, increasing trial, promoting sales or building a database. At times it might be so that, a brand wants the dealers to stock with their products so that they have no room for the competing products. Discounts and rebates might be a means to achieve that.

Providing samples has been the traditional way to get feedback on a new product. M-Coupons might be useful here to adapt to today's world. Providing discounted coupons or offers such as buy one old product, get one new product for free might help in smooth take off or promote sales for the new products. This might also help advertiser/brands to build a database of mobile customers who might be interested also in the future products.

One challenging aspect of M-Coupons could be the setting up a reliable and appropriate redemption mechanism because real-time validation would require Internet connections for multiple store coupons. Bar-code scanners must be accurate enough to

distinguish between the real coupons and images taken/copied from another mobile; also the validity of the coupon must be verified. A few M-Coupons might also need to be printed out to redeem, which might be an additional cost and effort to the consumer and not eco-friendly.

Thinking from the consumer point of view, the consumer has a choice of opulent brands and offers on all the products. So it might be difficult to handle multiple coupons from multiple locations from multiple brands. Though there are applications that can segregate the delivery of different coupons, they must be intelligent enough to evaluate all the permutations possible with a particular store at that particular time with that specific product. Added value in this case to the consumer might be that *If you scan a product, the application should detect the offers available in the vicinity and route you to the best possible offer.*

One parameter which mobile advertisers need to think of while offering such location-based coupons is the frequency and value of the offer. If a customer walks by a Starbucks every day and gets a discount every time he walks it might wave off faster. But if it is once in a while or maybe during busy days/a special occasion, if there is a limited time offer for a FREE coffee coupon, it may turn out to be memorable and the user might actually redeem the offer. Also a sales checkpoint needs to be made on how many coupons can be offered for a period of time. Analysis must be done on the upcoming products and special occasions. The goal of providing the offer must be clear. If there is a new product launch next week, the advertising strategy can be considered based on whether to opt for a clearance sale or combine it with launch. Similarly if there are special occasions such as Christmas or Valentine's Day nearby, where the sales might be usually higher than the normal period, offers can be made during that period rather than making them just before that, as it might lead to out of stock during the peak sale period.

Once the database is built, with the permission of the user, it might be good to correlate and track the usage of the M-Coupons and allow the user to tag it to a family or a network and allow it to be used in groups - though this might need an advanced level of database maintenance. For example it might be beneficial, if a father can grant a

few M-Coupons to his child to buy some fruit for the evening, rather than giving the money which might be lost or misused. Similarly grocery M-Coupons can be granted per family which can be used by anyone in the family. Beer M-Coupons can be shared by a bunch of friends. With the support of LBS, when on holiday with family or friends it would be good to share and use together the deals available at that particular location. Taking the discussion forward and focusing on such integration of Location Based services with M-Coupons and with the mobile advertising in general, the advantages and usage of Location Based Services (LBS) will be explored in the following section 4.3.

4.3 Location-based Services

Location-based services determine the location/position of the user using technologies such as Global Positioning System (GPS), control plane, Global System for Mobile Communications (GSM) and Radio-Frequency Identification (RFID) and use the information to provide personalized applications and services. Mobile phones are always on the move and hence the information can be dynamically updated to provide meaningful information that the user is looking for. For example if a user searches for a Chinese restaurant on a mobile internet search, it might list several sites, but the user might be looking for the nearest possible restaurant from the current location [1].

As discussed in section 4.2, about location-based M-Coupons, in the context of sharing beer M-Coupons among friends on a vacation. It need not be a holiday, imagine on a normal day where a merchant in a local store feels to sell some of his fresh vegetables before they get spoiled by making a good deal with daily or local customers. It should be a click away for him and vice versa for customers to know about the deals. It might be the advertising agencies who can establish such infrastructure and make it simpler and better for participants in the mobile market place.

Debating the same example it might be easy for the merchant to put a big banner in front of the store as he might receive the same customers every day because people might usually do the grocery shopping in the store of their vicinity. Local people tend to visit the same store every day or whenever they need some groceries. However, notifying the customers through a simple SMS or an LBS advertisement might promote not only customers in the vicinity, but also attract people who are a few miles away and

who cannot access or view those banners. Also people who intend not to buy on that day might get tempted to buy because of the offers that they came to know through the mobile phone which would have been ignored otherwise.

The cost of putting such a banner might be far cheaper for the merchant than enrolling to an advertising agency and publishing the data there. Tying up with the operator might push the burden to either the producer or consumer, Consumers will not be willing to pay if their message inbox got filled up with additional charges. So the victim might be the producer. Hence the advertising agency might also need to consider the protocol through which these advertisements are transmitted.

The customers might be burdened or not willing to pay if there is a hidden cost in receiving such notifications. One approach is to push notifications based on Bluetooth [6]. Proximity marketing or bluecasting is done by sending offers/messages to the customers via Bluetooth in the proximity of the store. This is based on radio technology which is free to the operator and cannot be billed. However the dark side of this approach is that it might generate more spamming. The messages are sent to all users in the vicinity. So, in this case the bluecast can be considered to be pushed onto customers. The only way to avoid that is to turn off the Bluetooth on the mobile phone, which is forcing the customer and breaching the privacy policy of the consumer. However if there could be an opt-in mechanism made - such as send a *one-click* request or a configuration message to enable the mobile dialogue, then this might be a good option to receive the LBS advertisements. Also it gives an option to the disinterested users to just click the skip button and move on.

However, once user allows a service to access his/her location, the data might still be tracked even though that particular service is currently not in use. LBS integration to social media is based on such applications which are constantly monitoring the consumer behavior depending on the type of places visited; the likes that they make on a social networking sites and this data might be analyzed to provide more customized and relevant advertisements to the user based on his/her location [15]. However not everybody would like to receive calls/notifications from marketers to know about the deals or hear suggestions on *how and where to go*. Users might not like this if such da-

ta was tracked without their consent. Hence the privacy policy needs to be clearly stated to users before initiating a request to access their location.

Smart phones today come with free navigation. Default maps applications are capable of fetching all the data related to a particular location, for example, when a user navigates using Here (Appendix 1) platform, it points out to the closest gas station, restaurant, public toilets, hospitals or any such basic amenities. If a user chose to go to a restaurant after finding it on the maps, one could even fetch the details of the restaurant, call them up and reserve a table. Converting and processing this data to information is the challenge that location-based advertising is trying to address. The next advancement might be that, the same maps application might show user reviews on that chosen restaurant, suggest the closest restaurant of the user's favorite cuisine, show happy-hour notifications in eat-outs close-by, generate M-Coupons. However the data processing should be so accurate and fast that it would generate the right details when needed. For example a happy-hour notification might not be useful to the customer if it would expire in a few minutes. So the systems should be built intelligent enough to verify the validity and utility of the notifications/Coupons.

Not only in the maps application, but location-based services can be integrated into several other applications on the mobile phone. Gaming is such an arena. Playing might be done in groups than one-one with the mobile device. Organizing a mobile treasure hunt, games that can be played with users in the vicinity are some such examples. Foursquare, Gowalla, Yelp are a few other location-based applications which allow users to update their location status to Facebook, Twitter and social networking sites directly from the applications. Not only for location updates but the social networking sites also promote sales by providing reward to their users. Points are awarded to users based on the number of times a user checks in at a particular location. These points are further rewarded for discounts at checked-in locations. LBS also enables users to share and read the reviews of that particular location.

More such use-cases can be considered when comes to LBS on mobile advertising. However limiting the scope here and based on the above discussion, it can be consolidated that if advertisers find the right sharing protocol (Bluetooth/operator billed/SMS),

stating the privacy policy clearly in the initial phase of sharing, provide the right data on time and dissect the location-based data to generate useful information, an LBS can be a useful form to personalize mobile advertisements for customers.

4.4 In-Application Advertising

In-application advertising is another form of mobile advertising where the advertisements are integrated into the applications used on a mobile. A mobile phone comes with a few default applications in it. More can be installed from the respective application stores. Integrating advertisements into these applications and enriching the user experience is the focus of In-application advertising. According to Steve Jobs an average user spends 30 minutes every day on applications. This *undivided attention* is a good opportunity for advertisements, especially if they can be integrated into applications itself taking advantage of various features on mobile phones such as touch-screen, GPS [16].

The process on In-App advertising is such that the developers approach an advertising agency or an advertising network provider and give information about the developer/company details and nature of the application that they want to integrate.

Information about the application will help the advertiser choose a suitable ad for the application. The next step is to download the corresponding SDK which will help in the incorporation of in-application advertisement. A developer can then upload his application and choose the appropriate revenue model (for example - pay-per-click basis). Some ad or analytic providers also incorporate features that help developers understand the way people use their applications and assess their revenues. The type of advertisements integrated into the applications can take several forms such as banner advertisements, videos, advertisements that link to pre-existing websites that can be viewed by flash, embedded applications or in-application M-Coupons.

Mobile advertisers compete for the user's attention to take away from the application they are using, and make them experience the brand by not frustrating, but providing a positive perception of the product. All users might not intentionally click on the banner ad. However when taken to the corresponding ad it should enrich the experience of the application rather than frustrate the user for his/her mistake. For example when a teen

is playing a racing game and accidentally clicks on the banner ad, popped-up ad should be more of sports car or on cars used in the game rather than about insurance plans. Also there should be easy way to resume the game and let user stay In-App.

As discussed in chapter 3.3, passing the control to user is one of ways to surpass the personalization and privacy barrier of mobile advertising. When the user clicks on the ad from the application there should be a choice for what to do next, whether to browse or skip the ad. There should be intuitive options provided for the user to explore, else skip button is mandatory to let the user get back to the application easily. In-App advertising also called appvertising is one form which has the capability to deliver the control to user to use the ad.

To tap such balance and build perfect in-application advertisements it might need more complexity and rich technical infrastructure. Also once the ad is clicked no user would like to wait for long time to see the first screen of the ad. Load time is also one of the parameters that ad developers should consider while booting the application. For example using on-demand pre-loading of just the content that is needed, such as pre-loading the options that the user selects, installing some necessary files during application setup and reusing the cache could be few steps to achieve that.

In-App advertising can imbibe other forms of mobile advertising discussed so far such as M-Coupons, LBS and SMS in a way that, an application can be built which can generate M-Coupons based on location and notify users through an bulk SMS. This is in a way giving incentives to users for using the advertisements which would make the user for a call-to-action.

Collecting the data on advertisements based on various features such as tap, pinch, zoom, gestures, swipes would help the developer know how the user is engaging with the ad and track when the user exits the ad. If there are high number of exits on a particular section, those sections might be changed and ad can be optimized and re-deployed. Also the user can be constantly engaged by providing the upgrades on applications or corresponding advertisements too. Users might download applications for free, but if there are advertisements integrated into it and the user clicks on the adver-

tisement, then the payment to the developer is done on a cost-per-click basis. This is one of the revenue generating models used in the free applications. Branded applications would receive sponsorships from the respective brands and those applications are usually paid.

Based on the discussion above, an application generating location based M-Coupon with a highlighted skip button and loads within very few seconds seem to be the desirable candidate for an In-Application advertisement. This is because, dissecting the statement above, location-based and M-Coupon integrate two forms of mobile advertising and at the same time since it is M-Coupon, an incentive is provided for the user to use the ad while a highlighted skip button passes the control to the user and loading in a few seconds implies as a fast boot time which are the parameters discussed above to make a potential In-application advertisement.

After discussing the background and habituated aspects affecting Mobile Advertising and the derived forms of mobile advertising, it is time to uncover the ways to check how far these can be implemented. Hence there were two case studies conducted with the mobile advertising companies, Steam Communications and Luxus. The respective project work is explained in chapters 6 and 7.

5 Research Design and Methods

Before proceeding to the case studies it is essential to uncover the methods used in performing the research. Hence this chapter explains the research methods used and the strategy employed in collecting the data and summarizes the data analysis methods.

5.1 Research Purpose

There are basically three kinds of research purposes: Exploratory, Descriptive and Explanatory. Exploratory research is used to clarify the understanding of a problem. It can be applied when the researcher is unclear about the characteristics of the research and need to explore further to develop a system of definition and the reach a more specific problem. Descriptive research aims to describe various phenomenon when the problem of research is clear. The researcher knows what to investigate, but the answers are not known. Explanatory research analyses the cause of a particular behavior and can be employed for the historical events which addresses the *why* questions. Basic categorization scheme is based on familiar question series – *who, what, where, how and why*. [8, 7.]

If the research questions focus mainly on *what* questions, either of two possibilities arises – either exploratory or descriptive. Exploratory: The second type of *what* question could inquire more on *how many, how much, who, where*. These kinds are likely to favor survey strategy which can be advantageous when the research goal is to describe the incidence or prevalence of a phenomenon or when it is to be predictive about certain outcomes. In contrast, *how and why* questions are more explanatory in nature. This topic of research aims to explore and describe how mobile advertising can be adapted by the companies. It aims to explore the factors and forms of mobile advertising. In this sense it can be categorized as descriptive and exploratory. [8, 7]

5.2 Research Methods

Once the researcher has the answers for the familiar question series as described above it is time to think about research methodology. It is the philosophy or the general principle that will guide the research. It is the overall approach to study the topic and include the issues to be considered such as constraints, dilemmas and ethical choices within the research. There are basically two research methodologies, qualitative and quantitative and the research methods are the tools used to gather data. [9, 14]

Qualitative research explores attitudes, behavior and experiences. It attempts to get an in-depth opinion from the participants. As it is about attitudes and behavior which are important in this methodology, fewer people take part in the research, but the contact with these people tends to last a lot longer. Citing an example from Quinn Patton [10, 3] there once lived a man in a country with no fruits. A scholar, he spent time reading and came across reference to fruit and set to undertake a journey to experience the fruit. He went to market place and inquired about land of fruit. After a long journey, he came to end of directions and found himself at the entrance to a large apple orchard. It was spring time and the apple trees were in blossom. He entered the orchard and pulled off a fruit and put it in his mouth. He neither liked the texture of flower nor the taste. He went quickly to another tree and tried another blossom and samples one after another. Each blossom though beautiful was distasteful for him. He went back to his country and reported to his fellow villagers that fruit was a much overrated food. Being unable to recognize the difference between spring blossom and summer fruit, the scholar never realized that he had not experienced what he was looking for. It is important to consider the criteria for judging the quality of qualitative data. Apples come to market sorted by type (Red, golden) and purpose (cooking or eating) and quality. Likewise qualitative studies vary by type, purpose and quality [10, 4]. Basically this type of research might be useful if the research topic tries to address words such as *discover, how, why, experiences, problems, behavior* [9, 20].

On the other hand quantitative research generates statistics through the use of large scale survey research. It addresses the *how often, how many, test, verify* type of questions. This type of research might involve many people, but the contact with those peo-

ple is much quicker than in qualitative research. If you have been stopped on streets or super markets to fill a questionnaire it falls under the umbrella of quantitative research.

However there might be a need to use the combination of both methods which is called **triangulation**. Many researchers believe that this is a good way of approaching research as it enables you to counteract the weakness in both qualitative and quantitative methods. [9, 20]

Citing from Quinn Patton [10, 12] some questions lend themselves to numerical answers, some do not. People weight can be known using a scale. But to categorize them as obese - body fat needs to be measured in relation to height and weight and compare the results to population norms (Quantitative). However to know the reasons of obesity, how it affects them, how they think about and what they do about it – more questions should be asked, some experiments should be conducted and experiences should be heard (Qualitative). Hence the research method needs to be employed based on the purpose of the research in question.

Considering the topic of this study the answers derived in the study topic cannot be quantified or measured it can be considered as qualitative. Also, since the purpose of the work is to gain a better understanding of the factors and forms of mobile advertising, a qualitative method will suit this study.

5.3 Research Strategy

Having discussed the research purpose and research methods, it is time to uncover the research strategy to aid the data collection. According to Yin (2003) experiment, survey, archival analysis, history and case study are different research strategies for relevant situations. Each research strategy is a different way of collecting data and analyzing empirical evidence, following one's own logic. A common misconception is that the various research strategies should be arrayed hierarchically. However, what distinguishes the strategies is not the hierarchy but three other conditions discussed below [8, 8].

- (a) The type of research question posed
- (b) The extent of control an investigator has over actual behavioral events
- (c) The degree of focus on contemporary as opposed to historical events

The research questions taking forms of *who, what, where, how many, how much* and which has focus on contemporary events are likely to undertake surveys or archival analysis as the research strategy. In contrast the questions such as *how, why* are more explanatory in nature and likely to lead to the use of histories, experiments and case studies as the preferred research strategy.

The purpose of this study is to gain a better understanding of the factors and forms of mobile advertising and there is no control on the behavioral events, so case study might be employed as research strategy. A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident [8, 13]. It copes with the technically distinctive situation in which there will be many more variables of interest than data points and as one result relies on multiple sources of evidence, with data needing to converge in a triangular fashion and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis. In other words, case study as a research strategy covers the logic of design, data collection techniques and specific approaches to data analysis [8, 13-14].

A case can refer to a single organization, a single location, single person or single event. However the most common use of the term associates the case study with a geographical location such as workplace or organization. Case study research is not confined to the study of a single case. Multiple case studies can be undertaken to compare and contrast the findings derived from each of the cases. This in-turn encourages the researcher to consider what is unique and common across cases and promotes theoretical reflection on the findings [11, 60-63].

However there might be confusion on multiple case studies and cross case analysis. According to Bryman Alan (2011) if the focus is on the cases and their unique contexts it is a multiple case study, but if the emphasis is on producing general findings with little regard to unique contexts of each of the cases, it is better viewed as cross sectional design. In other words with a multiple case study design the emphasis is on individual case unlike cross sectional where it is on sample of cases. As such multiple case studies are considered to be the case of *Comparative Design* as they allow the researcher to compare and contrast the findings deriving from each of the cases [11, 63].

In this study both single case analysis and cross case analysis will be conducted. I shall begin with analyzing both cases separately and compare then with the knowledge acquired from literature review. After that the two cases can be compared in cross case analysis. This gives the scope to uncover the uniqueness of one particular case and also corroborate the observations across cases.

5.4 Data Collection and Sample Selection

According to Quinn Patton Michael (2002) a qualitative design needs to remain sufficiently open and flexible to permit exploration of whatever the phenomenon under study offers for inquiry. It continues to emerge even after data collection begins. What is certain is that different methods can produce quite different findings. The challenge is to figure out which design and methods are most appropriate, productive and useful in a given situation. This chapter aims to explore few of such data collection methods and pick the ones that suit the research purpose [10, 255].

As discussed in section 5.3, case study will be a suitable research strategy for this research and case study evidence can come from many sources such as documentation, archival records, interviews, direct observation, participant observation and physical artifacts [10, 103-114]. Each source is associated with an array of data or evidence. A broader view on these data collection methods is as follows:

Documentation: Except for the studies of preliterate societies, documentary information is likely to be relevant to every case study topic. This type of information can take many forms such as letter, memoranda, emails correspondence, administrative documents and internal records, news clippings etc. The important use of documents is to corroborate and augment evidence from other sources. Firstly they are the primary source to verify the titles, names of organizations. Secondly they provide other specific details to validate the information from other sources. Citing an example from [12, 154], Think, for instance, what happens when an insurance company decides whether to pay out on a claim for accidental damage to the contents of a house. In order to make a decision, insurance company will then examine documents like house owner's claim form and accompanying builder's estimates. In doing so, documents are treated as resource in order to establish the facts of the case. Thirdly, they serve as inferences for example by observing the distribution list for a specific document, new questions about communications and networking within an organization can be found. However they can be treated as clues for further investigation rather than definitive findings because inferences could later turn out to be false leads. However the focus should remain more on the pertinent information and leave aside the other or less important ma-

material for later reading or review. Documents are written for a varied audience and case study researcher is just a vicious observer. By constantly trying to identify the objective, it is likely to be misled by documentary evidence and more likely to be correctly critical in interpreting the contents of such evidence [10, 103].

Archival Records: These are more or less a sub category of documents but which are more quantitative in nature such as public use files, service records, organizational records, maps and charts, survey data etc. They can be used in conjunction with other forms of evidence in producing a case study. For some researches they can be so important that they become the object of extensive retrieval and quantitative analysis unlike as passing relevance in other cases. However when archival evidence has been deemed relevant, an investigator must ascertain the conditions under which it was produced as well as accuracy [10, 106]. Since these are mostly useful for quantitative analysis, not much of description is done here.

Direct Observation: A case study can take place in the natural setting of the case creating an opportunity for direct observations which can be formal or casual in nature. Assessments taken from the field workers, observing the ambience, status of the interviewee in the organization etc. could be few examples. They provide some additional information on the topic being studied [10,106-110].

Participant Observation: It is a special mode of observation in which the researcher is merely a passive observer. Of course this might sometime make the researcher to be totally imbibed into the system inviting major problems as well providing unusual opportunities for collecting case study data [10, 106-110].

Physical Artifacts: This can be a technological tool, device or instrument, a work of art or some physical evidence. Such artifacts may be collected or observed as part of case study and are an important source of evidence may be in anthropological research [10, 106-110].

Interviews: One of the most important sources of case study information is the interview. Such an observation may be surprising because of the usual association be-

tween interviews and survey method. However, interviews are also essential sources of case study information. In other words although a consistent line of inquiry is pursued, actual stream of questions in a case study interview is likely to be fluid rather than rigid. Case study interviews require the interviewer to operate on two levels at the same time: 1. satisfying the needs of the line of inquiry. 2. Simultaneously putting forth friendly and non-threatening questions as open-ended discussion [8, 106]. This is cited as a miner or traveler metaphor by [13, 3]. In a miner metaphor, knowledge is understood as buried material and the interviewer is a miner who unearths the valuable metal. The interviewer digs nuggets of data or meanings out of subject's pure experiences, unpolluted by any leading questions. On other hand, researcher also plays a dual role as a traveler on a journey that leads to a tale to be told upon returning home. The journey might instigate a process of reflection that leads the interviewer to new ways of self-understanding as well as uncovering previously taken for granted values and customs in the traveler's home country. In a broad sense, the miner metaphor brings a common understanding in modern social sciences of knowledge as *given*. The traveler refers to a postmodern constructive understanding that involves a conversational approach to social research [13, 5].

There are basically three broad categories of interviews when it comes to case study research [8,107]. Firstly in an ***in-depth interview*** key respondents are asked about the facts of a matter as well as their opinions about events. In some situations the interviewee may propose her or his own insights into certain occurrences which can serve as basis for further inquiry. Hence this might carry on for an extended period of time and not on single sitting. However, the more the interviewee assists in this manner he/she becomes an informant rather than respondent. Of course, one needs to validate such insight by informants against other sources of evidence too as carefully as possible. Secondly, in a ***focused interview*** a person is interviewed for a short period of time - an hour for example. In such cases, interviews may still remain open-ended and take a conversational form. However it is more likely to be following a certain set of questions derived from case study protocol. The major purpose of this kind of interview is to corroborate certain facts that have been thought to be already established. Hence it is very important for the interviewer to appear genuinely naive and allow the interviewee to provide fresh commentary on the topic. In contrast if the leading questions were

asked the purpose will not be served. Thirdly, in a **structured interview** / survey - where a set of pre-designed questions are asked on the lines of a formal survey. This research method is highly structured and quantitative in nature. It could take up several forms of questionnaires such as closed-ended, open-ended or combination of both. Closed-ended are of usually the lengthy consumer surveys asking for boxes to tick on habits, experiences and generating statistics for quantitative research. Open-ended are usually qualitative in nature where there are blanks provided for the consumers to respond on a behavior. Closed-ended might aim to find out how many people use a particular service unlike open-ended where the goal is to find out why people use that particular service. However combination of both can be used to find out how many people use a service and what they think about that service on the same form [9, 31]. Whatever might be the type of interview, they act as essential source of case study evidence because most case studies are about human affairs or behavioral events.

Considering the objective of the study which is to gain an understanding on how organizations adopt mobile advertising. Based on the literature review, the scope of the thesis work was derived to investigate on factors and forms of mobile advertising used by organizations and understand the reasons behind adopting mobile as their advertising medium. The main purpose of interview is to corroborate the derived factors and forms of mobile advertising. Hence, a focused interview would suit this research better and aid the data collection as it leaves the room for open-ended discussion at the same time binding the conversation to the hypothesis derived from literature review. Hence data was collected by interviewing the representatives from the case companies through a focused personal interview. The research purpose and strategy were briefed to the case companies before the interview. The questions were clearly explained and the answers were received within the allocated time of exercise (90 minutes). The interview questionnaire (listed in the Appendix 2) was developed based on theoretical background explained in the chapter2, chapter3 and chapter4. The interviews were transcribed to aid as an input for data analysis. Hence, summarizing the discussion above Interviews was chosen as the data collection method that suit this research needs.

Having decided on the data collection methods it is time to investigate on the type of sources to collect data. When conducting a research, it is not possible to collect data from all the potential units of analysis. Hence a smaller set of units, a sample is chosen which represent the attributes of whole unit of population. According to [9, 55] there are two types of sampling category – probability samples and purposive samples. In probability samples, all people within the research population have specifiable chances of being selected. Purposive samples are used if generalization is not the goal.

Since the aim of the study is not to generalize on factors and forms of mobile advertising but specify and corroborate the factors and forms of mobile advertising derived as per the literature review, purposive sampling technique would suit this research better. But considering the scope of the thesis work it is not possible to accommodate all the companies that use mobile as their advertising medium. Hence, two case studies were conducted with a specific goal to gain an understanding of how organizations adopt mobile advertising. However, it does not mean that any random selection from the group can be part of the sample data. If a wrong person was interviewed, the research might become invalid. It has to be validated across the research purpose. Since the purpose of the research is to gain an understanding on how organizations adopt mobile advertising and investigate on factors and forms of mobile advertising, it is important to interview a person that has good knowledge, experience and command on the research topic [9, 48-49]. Due to their domain expertise and experience in Mobile Advertising companies, the chosen respondents – Mr. Tero Kalsta, Managing Director from Steam communications and Mr. Mikko Torstila, Global Client Lead from Luxus were considered to be suitable for this research.

5.5 Data Analysis

Completing the data collection lifts the study to the next challenge of analyzing the data. The challenge of qualitative research lies in making sense of massive amounts of data collected. This involves reducing the data, getting the right focus, identifying significant patterns and constructing a framework for communicating the essence of what the data reveal. According to Yin (2003) there are five data analytic techniques that can be applied to qualitative research [8, 136]:

Pattern Matching: This logic compares an empirical based pattern with a predicted one. If the patterns coincide, the results can help a case study to strengthen internal validity. In the context of this research, as per the literature review there are certain derived factors and forms of mobile advertising, comparison of the case studies with those empirical data will aid the data analysis. Hence the data will be analyzed across the derivations from an empirical based pattern and finding the relevance to case studies. This could be one of the methods that are apt to the research context.

Explanation Building: The goal is to analyze the case study data by building an explanation about the case. Since the case studies are conducted with an aim to gain an understanding on how organizations adopt mobile advertising and finding the relevance to factors and forms of mobile advertising – building an explanation on a single case does not suit this research work.

Time-Series Analysis: The objective is to examine *how* and *why* questions about the relationship of the events over time. Since there are no concrete events framed that can be investigated over time this method will not suit this research work.

Logic Models: It deliberately stipulates a complex chain of events over an extended period of time. There are no events that are framed and investigated over time. Hence this method will not aid this data analysis.

Cross-Case synthesis: Analyzing the data across multiple cases giving more robust results than a single case. Since there are two case studies that will be conducted, analyzing the data across the cases might lead to exploration of further details and strengthen the results obtained. [8,136-138]

As per the discussion above case study is the chosen research strategy for this research. As per the literature review there are certain derived factors and forms of mobile advertising. A focused personal interview was conducted with Steam Communications and Luxus to collect the data with respect to derived factors and forms of mobile advertising. Hence analyzing the data by finding the relevance to established factors and forms of mobile advertising would corroborate the hypothesis and since the objective is to find relevance with derived pattern on factors and forms of mobile advertising pattern matching technique suits this data analysis process. However to get more credibility on the findings across the cases, cross case synthesis seems to be appropriate data analysis techniques. Consolidating the discussion above this research can be categorized as a Qualitative research employing case study as the research strategy where the data was collected by Interviews which is analyzed using pattern matching and cross-case synthesis techniques. Data was collected through focused interview that lasted for 90 minutes. Interviewees were representatives from the case companies Steam Communications and Luxus. Both the companies are located in Helsinki, Finland (Appendix 1). The research purpose and strategy was briefed to the case companies before the interview. The questions were clearly explained and the answers were received within the allocated time of exercise (90 minutes). The interview questionnaire (listed in the Appendix 2) was developed based on theoretical background explained in the chapter2, chapter3 and chapter4. The interviews were transcribed to aid as an input for data analysis and the transcription can be provided if needed (Appendix 1). The following chapter presents the data collected through interviews and transcription.

6 Case Studies

In chapter 5, the methodology of the study was discussed. As said before case study was chosen as the research strategy and current chapter focuses on presenting the data collected through interviews in selected case studies: Steam Communications and Luxus. Each section will start with a brief introduction of the company followed by data presentation that addresses the affecting factors and forms of mobile advertising discussed so far.

6.1 Steam Communications

Steam is a Finnish mobile communication service provider started in 2000. The company was started by 3 young people to harness the spread of mobile communications. Through a decade of their services in mobile communications they have specialized in text-based services and other services include Customer and Marketing Communications, Mobile Payment, E-tickets and coupons. Their main customers are Seppälä, M & M, verkokauppa.com, Hakonen, Tiketti etc. To establish in mobile communication services they have partnered with TDC, Itella, Louhi Networks, Tiketti, TeliaSonera, Avaus, Rautakirja and Mediamasteri Group. Further information is available on their website (Appendix 1). Figure 5 shows the screenshot of the home page of Steam's website.



Figure 5: Screenshot of the home page of the Steam [Adapted from Appendix 1]

Factors affecting mobile advertising adoption

Branding strategy

Steam's core implementation is into mobile communication services such as building and maintenance of the text-based services for their customers. Utilizing that system they have made a brand campaign for a Finnish candy company M&M. The mission was to make customers taste M & Ms. Steam built a SMS service for them. For instance M & M wanted to get people to taste the M & Ms candies plus showing them where one can purchase them. Steam used Facebook application to get people connected to brand where they gave the possibility to get the sample for free. Since Facebook application has marketing permission - the customer keyed in phone number and click send button on the Facebook page. Steam sends the Ärrä-koodi to their phone where they can go to the kiosk, show the Ärrä-koodi and get the sample. Thus, it is a combination of web Facebook application and interface developed by Steam. Though this was one of the cases where branding strategy was part of the campaign but this is a factor that is seldom considered in Steams operations.

Service Costs

Steam sees service costs as a problem - as quite often people put this next to each other and say they have package of 1000 SMS and the pricing model for these services is just different. Since provision of such systems is a huge investment and Steam gets charged for each message sent out from their system, hence to get a return on the investment it puts a cascading effect to the customers. However Steam's pricing strategy is to keep them fairly high because of their quality level expectations from their customers. According to Steam price is always the issue and it all depends on the purpose of a campaign – to generate more business, to sell coupons etc.

Personalization and Privacy

Steam does not see Personalization and Privacy as a problem because usually when they customize the message their customer/client has the knowledge of the customer database on their behalf. Steam gets the permission to use their customer data. If not, they do ask for marketing permission. It is more of a legislative issue and they always tell their customers their requirements in advance. If they want to ask for doing direct marketing mission, there is always double opt in and if the customers did not do it then they do not do it. Hence Steam does not see that as a problem because the data that customers need to have or Steam need to collect is through double opt in service. As long as the customer's permission is sought in advance Steam does not consider Personalization and Privacy as barrier.

Platform

Steam's operations are mainly SMS based because SMS are standardized. But speaking of the links, landing pages of the mobile sites that come through SMS, it makes a difference. There have been few cases that they have done along the years with MMS where they need to make lot of versions depending on the price and it is a lot of manual work and according to respondent it was not beneficial. If the handset base is known then it can be optimized, but then several versions need to be made. But Steam considers MMS as not an issue anymore. According to Tero Kalsta - "It is passed, it never picked up and it never will" (Appendix 1). Cost structure for MMS against SMS has never been competitive. For instance some of the phones have combinations to make a smiley and such things needs to be considered while writing the kind of text. This was learnt through one of the Steam campaign - some of the first Ärrä-koodi that they sent out has letters and digits combined. When one of the Ärrä-koodi had colon and started with letter P - then it is a smiley with a tongue out. With such special characters combined it did not work at the kiosk. Such things need to be taken care of during the implementation phase. Considering these factors Steam does not see this as a barrier, but perceives it as an extra effort during implementation. Having covered the Steam's relevance to factors affecting mobile advertising adoption I shall move on to presenting Steam's relevance to the mobile advertising forms discussed in chapter 3

Forms of Mobile-advertising

SMS

SMS being the Steam's forte they really have lot of success stories and various customers using this form of advertising. But limiting the scope of thesis writing only the most successful cases according to respondent will be listed here. Three most important cases according to respondent are listed below

Renewal of Electricity Contracts

There was an electricity company which makes contracts for a year or 2 years, but not long term contracts. Thus, there was a problem that renewing a contract was time consuming and complicated for customers. Through Steam they introduced a channel where customers can confirm that they want to renew the service via SMS and this service became popular channel of renewing the service. Customer does it by inserting agreement number and sending it to a short code. Lot of agreements per month was renewed though this service efficiently. Since it goes directly into electricity company's database, there was no difficulties to report the same to their home systems.

Logistics

Hakonen is a Finnish delivery company which sends out delivery information of the package. They had 1-way messaging service for sending messages such as - "we are coming at __ time. Is it ok? ". They wanted to have a feedback system on how their service works - Steam helped them in setting up a system where instead of sending the message to the consumer saying that package is arriving at a particular time they wrote a longer message there saying that - *please tell us how the process went. Please reply on a scale of 1-5: 1 being worst and 5 being best.* They got many feedbacks per month by adding message length and enabling the reply channel. So the process is still the same, but they are getting further information and activating their customers which helped them get instant feedback. On the top of it if they get bad replies they can instantly call and ask what went wrong and rectify the problem accordingly.

Donation Service

There was a TV concert for a charity purpose to help sick kids. Popular bands were playing in the concerts and it was tele-casted. Customers had called on a specified number to make the donations, but through Steam they introduced SMS to that service. The SMS details were flashed once or twice during the service and according to respondent the response rate increased via SMS by activating customer to different channel. According to respondent Steam employs SMS as their primary form of mobile advertising in their services.

Mobile Coupons

Steam had integrated their SMS service to be served as Mobile coupons for their customers. For instance Mobile Coupons in Steam started with tickets through a Finnish ticket service called Tiketti. It is one of the companies selling tickets for events or concerts. Tiketti wanted solution that would allow clients to print tickets or use mobile tickets. Tiketti had the back end where while reading the ticket they are being validated through Steam's system. Steam's system synchronizes all the ticket data a couple of hours before the event. Whether the ticket is coming from a print ticket or a mobile ticket the redeem system is indicated for everything. However, they had problems with fake tickets or copied tickets. When tickets are digitalized and given a unique code, it is not easy to reproduce the ticket. If a customer is trying to produce the same code again, they instantly see a red dot on the redemption equipment. For example: mobile tickets can be sent to friends as well. But as these tickets are validated on first-come-first-serve basis, if friend uses it first then the actual customer who forwarded it cannot get in. There is money loss because of copied tickets in the first year when they took that in use. Coupons can be sent also through a down-loadable link. Customer will get an SMS about purchased ticket stating the entrance code. If the customer for some reason cannot download the ticket then there is a link to a web page where customer can download the ticket. It is one of way that the forms are optimized. Since when user clicks the link Steam gets the data about the device user is using.

Other instance where Steam employed M-Coupon was with Helsinki airport. They launched one of the very similar concepts for a company which is running all of the restaurant operations at the Helsinki airport. Earlier if a flight is delayed the passengers were given paper vouchers to be used in the airport. But they wanted to get rid of this paper voucher system because it was lot of manual work as the paper vouchers were manually checked afterwards, updated to system and raising the invoice. In addition, it is possible that in travel rush passengers might lose their paper coupons. Thus, when Steam digitalized them - it is a code that is delivered to passenger's mobile which is read by machine at the cash counter. It uses 2D data metrics code. It is smoother at cash and passengers did not have to carry paper voucher or the receipt. Once the restaurant staff have to invoice the company which has issued this voucher they push out the team invoice from the system - which they were doing manually before and that involved calculating how many vouchers has been used etc. Hence Steam also employs M-Coupon as one of their mobile-advertising forms by integrating it to SMS.

Location-Based Services

Steam sees a possibility of using location based service. Finding out the location via phone, seems it never fully picked up for them because one of the operators had problems with delivering the information. When somebody is sending a text it is possible to know from which base station it is delivered. Through their existing systems on a broad scale they know where users are, but then they are not yet ready with location based services which would need dynamic data and accurate location of the user. The reasons for Steam not investing in Location-Based advertising are lack of resources, sufficient time and clarity from their customers to believe the future potential in these services.

In-Application advertising

The respondent says he has seen playing Angry Birds on Samsung tablet but he thinks it is annoying and they want to hear success stories before they get themselves started with this form of advertising. As per Tero Kalsta, Steam is not keen on this form of advertising and would like to evaluate the potential in this before going forward.

Above discussion states Steam's perspective and operations on affecting factors and forms of mobile advertising. A similar interview was conducted with Luxus to collect the same data and the presentation follows.

6.2 Luxus

Luxus is a Finnish digital marketing agency started in 2001 with 5 employees. The company increased by 20 fold within a span of 10 years. They have 100 employees now. They are specialized in providing digital solutions with a combination of strategy, technology, production and creativity. They create and execute digital marketing campaigns for companies. Their main advertising forms include video production for the product launch, mobile related campaigns, extended print campaigns and they execute these across all the client locations globally. Figure 6 presents the screenshot of the home page of Luxus website. They are based in three locations – Finland, USA and Singapore. Few of their clients include Nokia, Pepsi Co, Oracle, BMW, GE, Iittala.

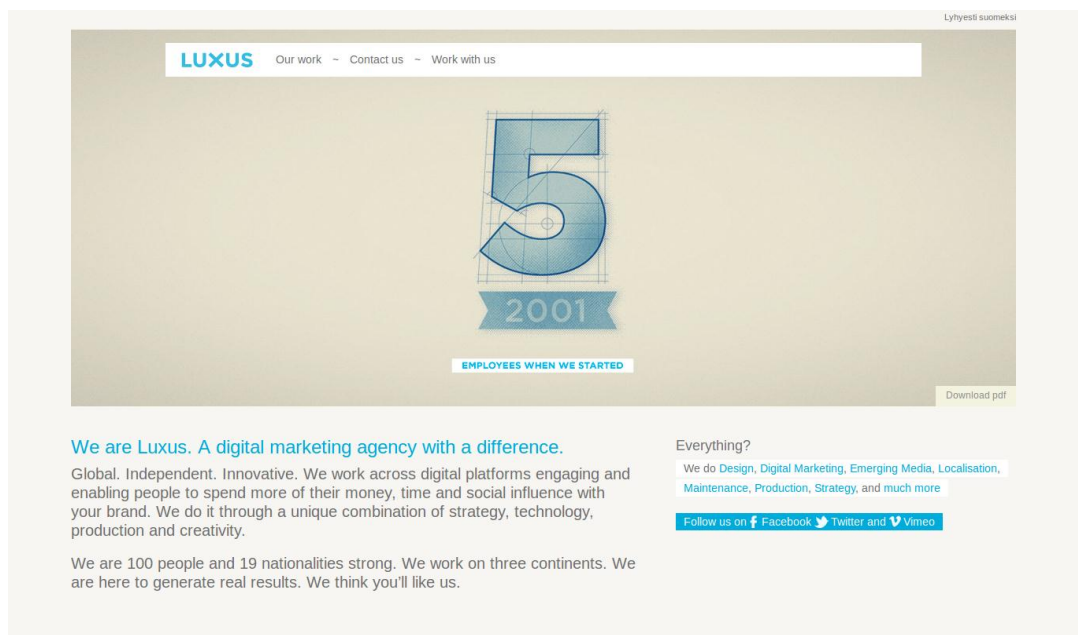


Figure 6 Screenshot of Luxus home page [Adapted from Appendix 1]

Factors affecting mobile-advertising adoption

Branding Strategy

Mikko Torstila says that “There are certain brands that fit together nicely with other brands. Major brands that work together borrow each other’s own media space. I did not really see big barriers there in just the brands happen to explore too much, if brands are collaborating in other areas. They might be sort of one thing that they may still consider as a niche that they think of as a place for collaboration. In some sense it is a barrier if brands do not match” (Appendix 1). They see it as opportunity if brands match. For Luxus, it is a matter of smart planning and seeing the brands can blend well in their advertisements. According to respondent if the brands blend well in their advertisements then it is perceived as opportunity and if they do not match then it can be a barrier to some extent.

Service Costs

Mikko Torstila says that service cost is a real barrier. However, he sees it as a barrier that is being moved away from countries that has a deep smart phone penetration. He says “nobody buys the new Lumia or an iPhone or an Android without a data plan” (Appendix 1). But in countries that are less custom to monthly subscriptions it would stand as a real barrier and according to respondent in order to surpass the barrier it needs assistance from the operators in providing efficient data plans and services.

Personalization and Privacy

According to the respondent, this is something that requires quite a lot consideration. If the user gets a surprise SMS from an advertiser which the user is not signed-up for, those are immediately considered as Spam and intruding the privacy. Mikko Torstila personally would not like to get an SMS ad from somebody that he does not know. According to respondent it can be harmful for one's business if invading people's privacy. But then again personalization and going back to the SMS, if the user's consent is tak-

en the perception is totally different from the something that user did not ask for. According to respondent it might work if there is a clear call-to-action in the advertisement and if free stuff is provided with that SMS message. For example, buy something by answering a message with a specified keyword. But if it is not relevant to user, if user did not ask for it than most likely user would not vote for it. Modern way of personalization and optimization of things would be web based which you can optimize based on one's location, browsing history, third party cookies etc. According to Mikko Torstila one can get ominous with mobile where as it is different for fixed web. In fixed web if user opens a page, the computer can be triangulated to be on a certain geographical location and user can be offered something. For example, to get an offer to a haircut, because the user is in that specified location. Somebody can notice that as interesting and others can find it intruding privacy. Mikko Torstila personally would not find it annoying if he happens to get a relevant offer when he is passing by something which otherwise he would have missed. Stating an analogy with web he says that on many fixed web pages that user's name can be identified and if user has visited before, the page might greet the user with text such as *hello and user name*. Based on the location, system can identify the time zone of the user and if it is morning, it can say for example *Hello username, Good Morning*. According to the respondent it is a subtle way of doing the personalization and trying not to push the boundaries. Summarizing the above presentation the respondent does not see it as a barrier if the campaign is smartly executed in subtle manner.

Platform

According to the respondent technical barriers have been pretty much diminished when it comes to smart phones (Appendix 1). However they consider it quite a lot in their operations to make their campaigns as platform independent as possible. Mikko Torstila finds the choice of platform/platforms is proportionate to coding efforts than it would be specifically tailored for some specific platform. According to him this it is not a real barrier, but requires more effort and consideration while designing the campaign. This concludes the data presentation with respect to factors affecting the mobile advertising adoption. I shall now move on to next segment which is forms of mobile advertis-

ing. The following section describes the Luxus's perception to the forms of mobile-advertising discussed in literature review in Chapter 2.

SMS

Steam had conducted campaigns which are SMS based and the respondent says that it was one of the traditional ways that worked in the older times. Few of such campaigns are described as follows

Finnair

The campaign was to use Luxus's automated SMS system to receive notifications when the passenger status gets upgraded from economy class to business class. If the passenger is a Finnair plus member, miles or points are rewarded for every travel passenger makes on Finnair. If the passenger has opted in for SMS check-in, Luxus has created a system that offers an upgrade based on points or miles collected by the passenger. When the passenger has accumulated sufficient points or miles - 24 hrs before the flight the passenger gets an SMS notification offering an upgrade to business class. If the passenger wants to opt for it, they need to answer to that message by sending the query, which then automatically gets into the booking system, upgrades the status from economy to business class and deducts the points from Finnair plus account. According to the respondent this was one of their successful campaigns and Mikko says that it surpasses the barriers discussed so far. Since it is received as SMS it can be used on any phone surpassing the platform chosen barrier and the SMS is not brand based. Since the passenger opted-in and it is relevant – it crosses the personalization and privacy barrier. This would be sent as a normal SMS for which user is not charged anything so it surpasses the service cost barrier. Mikko Torstila personally was happy to use this system and get an upgraded seat to business class with his accumulated points that otherwise would have been lost. Luxus SMS system has also been used as part of product launch which is explained in the next case which is about Nokia Music.

Nokia Music

This campaign was to launch the Nokia music in countries where they have the online music store. There was a printed leaf in the sales box of the Nokia Music phones which said *sign up for Nokia music to get few free songs*. People might have ignored the leaflet and those songs were not downloaded and the accounts were not activated.

Users that had devices capable of using Nokia music - Luxus send them unique pin codes that helped them to get free music from stores and purpose for this was to get more activations to Nokia music. It was sort of nice reminder or an extension to the campaign that was planned with the box. They got the user database from Nokia. According to respondent it is often the case that the database of different contacts comes from the company they sign-in. There are regulations on what is not allowed to use and what can be used. This campaign will not work in all countries that Nokia operates, but it was executed in few countries where the terms and conditions and the opt-in met the requirements.

These two were Luxus's main success stories for their SMS based campaign and the following cases were stated when the respondent was asked about the next form of advertising which was about Mobile Coupons.

Mobile Coupons

Luxus created a system for Lumene that generated, redeemed the M-Coupons and updated the inventory status based on the number of the coupons redeemed. This helped Lumene to monitor and react to locations that are running out of stock. An advertisement was published as a SMS or a url on a magazine, when typed on mobile, gives a QR code that served as coupon which can be redeemed for a free lipstick. According to the respondent there was potential in this as it was url that a user had to type into any device and the derived QR code can be used for redeeming the lipstick. Luxus providing the redemption equipment to Lumene which read the M-Coupons and update the lipstick inventory status to Lumene's database. This helped Lumene to refill the stock to the retailer in advance. This was an integration of Mobile Coupons to print

and web media. Similar form but employing Near Field Communication (NFC) technology was done for Nokia which is described in the next segment.

Nokia

This campaign was NFC based and during Christmas season in Nokia flagship store in Helsinki city-center. An NFC tag was put in the midst of Christmas decoration on the window and it was marked so that people know that it was NFC and it is the place that they should tap. Upon tapping the specified location users will enter a raffle and user could win a white Nokia N9 on 24th December. In addition to that, by tapping the NFC tag on the window the user would get a mobile coupon that gave 20% discount on all the NFC accessories that were sold in store. Similar ones were also placed in store so that customers who were playing with the devices in-store could also tap the tags. When user taps the NFC tag, it opened a page that directed the user to follow the steps and sign up for the raffle. It opened a mobile optimized responsive web page where user enters one's phone number and name. The terms and conditions were available next to the tapping NFC thing. After user signed up, there is a possibility to forward the raffle entry to a friend. If the user puts the friend's name and address they would get an email which includes the page user signed up for. There were also daily prizes for the raffle to win NFC accessories.

These were the cases that Luxus had corresponding to Mobile coupons. The cases with respect to Location-based services are described as follows.

Location-Based Services

According to respondent Luxus has not done purely Location-Based mobile advertising. But the only case that can get closest is described as follows. In the Nokia world 2011 they have put a Foursquare vending machine which looked like a regular coke dispenser but it did not have any buttons. There was NFC tag in front of it and if a user taps it with a NFC phone it dispensed a NFC accessory. If the user does not have a NFC based phone it opened Foursquare mobile page and once the user logged into it, the vending machine dispensed a cardboard tool that might have a candy or a toy or even a phone. Luxus provided the back end for this system. Also the user who

checked-in at the same place can find the vending machine and if they are logged in there, the machine dispensed a free gift. However if the user had a NFC enabled phone and if they used the NFC phone to open the foursquare place the machine dispensed a different gift. There were two different things that it dispensed , so if one used a NFC device it dispensed the gift probably a NFC accessory from one side of the machine and on the other side it had different stuff for NFC disabled device.

In-Application advertising

According to respondent they do not have any cases with the In-Application advertising. But according to Mikko Torstila - when there are idle times while playing a game, for example while loading a level - in that place one could advertise something which is relevant. He opines that there is potential to monetize there. But, they do not have cases that they worked for In-Application advertising.

This concludes the data presentation from the two cases, I shall now move on to analyzing this data and the following chapter focuses on analyzing the data collected.

7 Data Analysis

In the previous chapter the data concerning both the cases were presented. This chapter focuses on analyzing the data collected and finding the relevance to the literature review described in chapter 3. Analyzing the data by finding the relevance to established factors and forms of mobile advertising would provide credibility to the hypothesis and also, since the objective is to find relevance with the established factors and forms of mobile advertising, the pattern matching technique suits this data analysis process.

7.1 Data Analysis – Steam

As discussed in chapter 5.5 the data analysis will be performed by employing pattern matching technique. This logic compares an empirical based pattern with a predicted one. If the patterns coincide, the results can help a case study to strengthen internal validity. The literature review aided in framing a draft of the factors and forms of mobile advertising. Thus, as per the literature review factors affecting mobile adoption include Branding Strategy, Service Costs, Personalization and Privacy, and Platform. Forms of mobile advertising include SMS, M-Coupons, Location-Based Services and In-Application advertising. Hence following the pattern matching technique I will start with finding Steam's (Appendix 1) relevance to the factors derived as per literature review. To get a quick glance on the relevance of the factors with respect to Steam, Table 2 summarizes the data analysis explained in the following section 7.1.

Table 2 Steam's relevance to factors affecting Mobile Advertising adoption

Factors Affecting Mobile Advertising Adoption	Steam's Relevance
Branding Strategy	Yes
Service Costs	Yes
Personalization and Privacy	Yes
Platform	No

Branding Strategy:

As per Alex Michael (2011) whether the goal is to acquire new customers or strengthen the existing ones, sales promotion or launch a new service, adding the mobile dimension to the brand-building campaign is an effective and interactive way to organize the campaign. It helps in getting the instant response and provides a channel for customer follow-up [1, 43]. Considering the Steam's M&M campaign stated in section 6.1, the purpose of the campaign was to make the customers taste M&Ms and strengthen the M & M brand value. This campaign was integration of mobile and web. Based on the data presented in section 6.1, adding a mobile dimension to this campaign lead to content redemption figures and improved the sales. However this was one of Steam's campaigns, but considering their operations in general it can be inferred that as far as Steam is concerned though the branding strategy is not the primary mission of every campaign - it was integrated to their mobile advertising operations. When the goal of the campaign is to strengthen the brand value - Branding Strategy can be considered as factor affecting mobile-advertising adoption. In this case M & M chose mobile as their advertising medium to strengthen their brand value and Steam supported it. So when launching a product or strengthening the brand is the primary goal of the campaign relevance can be established that branding strategy affects the mobile-advertising adoption.

Service Costs:

As discussed in chapter 2, unlike the traditional wired Internet, mobile advertisements need to be transmitted through air, which incurs costs and the delivery charges cannot be pushed onto users as it might most likely result in rejection of the ad [1, 25-26]. Hence the advertisers and operators are constantly hunting for options to steer a model that would generate profitable returns. Steam (Appendix 1) also says that price is an issue for them and there is considerable price rivalry within their business on best services with minimum service costs. However price cannot be compromised at the cost of delivering quality products and meet the expectations of their customers. Thus, Steam (Appendix 1) sees this as a challenge. Hence relevance can be found to the fact that Service Costs is a factor that can affect mobile advertising adoption.

Personalization and Privacy:

According to the literature review in Chapter 3, combining the Push and Pull advertising mechanisms effectively so that it can result in a mobile dialogue, giving the user enough control on one's own data, and stating the privacy policies clearly before the opt-in, might aid in the better personalization and not at the cost of privacy. Steam completely believes in this philosophy and they duly take the consent from their customers when it comes to employing the user data in their campaigns. A relevance to this factor can be observed in their campaigns for customers such as M&M, Hakonen, Electricity contract renewals, discussed in section 6.1. Personalized SMSes were sent to the customers who opted in for the service, which had positive results. For example Jonathan Heino, Marketing manager, Mars Finland said that M & M sales were improved by adapting Ärrä-kodi (Appendix 1). A point to note here is that it was not spammed to all M & M customers, but SMSes were sent only to customers who opted in for this service. Similar behavior can be observed with Hakonen electricity contracts. Though the user consent and legal regularities are handled by Steam's customers, it is a pre-requisite for the campaign execution. Hence taking the consent of the user in advance will help in successful execution of the campaign and thus relevance can be established that Personalization and Privacy is a factor affecting mobile advertising adoption.

Platform:

Reviewing the discussions in chapter 3, platform refers to type of the advertisement, type of handset and corresponding development environment (SDK), business model of promoting the mobile application (free/paid/premium), the ad network/partner can be constituted as the criteria for choosing a platform when developing advertisements for mobile devices. As most of Steam's (Appendix 1) operations are SMS-based and it is uniform across all the mobile devices, they do not see Platform as a barrier in their advertising services. However when it comes to their MMS services, they see it as a barrier to an extent. However according to the respondent, MMS never gave profitable returns (Appendix 1) and Steam considers that it requires careful implementation. Hence no relevance can be found with respect to platform affecting the mobile advertising adoption

Apart from the above stated factors the respondent also said that awareness of the potential in the mobile advertising is one barrier to convince their customers to adapt mobile as advertising medium. Having analyzed the data on factors affecting the mobile advertising adoption it is time to move onto next segment of finding the relevance to the forms of advertising discussed in chapter4. Table 2 presented in page 62 summarizes the Steam's relevance to the factors derived from literature review in chapter2. Similarly Table 3 is drafted below to give a quick glance on Steam's relevance to forms of mobile advertising derived from literature review and is analyzed in the following sections.

Table 3 Steam's relevance to forms of Mobile Advertising

Forms of Mobile Advertising	Steam's Relevance
SMS	Yes
Mobile Coupons	Yes
Location-Based Services	No
In-Application advertising	No

SMS:

SMS is one form of the basic features of any phone. Having a mobile phone implies the capability to text - making every phone an avenue for advertising. As said in section 4.1 the SMS form of advertising also surpasses the barrier of privacy as the message can only be sent with the user's consent. The user has the control to use (read/delete/forward) it and at his/her own pace. Relevance can be established to this fact and Steam have established themselves in SMS services. The respondent says that "Everybody has a phone and when one gets message, they know how to read it and act upon it" (Appendix 1). Steam's mobile advertising solutions are purely SMS based and they have built the credibility of several customers since 2000, based on SMS. This shows that there has been a potential since then and it is continuing. They have explored other advertising forms such as mobile coupons, which are yet again integrated into their SMS services. More on the M-Coupons is discussed in the below section.

Mobile Coupons:

As discussed in section 4.2, mobile coupons or M-Coupons are the electronic tickets that are delivered to the consumer's mobile phone, and they can be exchanged for a financial discount when purchasing a product or a service. As per the literature review these are one form that can integrate into an SMS or given separately. The challenges that were discussed in chapter 4.2 were the redemption mechanism, validating the coupons, and ways of launching them. Steam launched an M-Coupon campaign through the Finnish Tiketti service. The challenges discussed such as validating the coupons were encountered in the first year of their operation and there was a business loss due to copied and misused M-Coupons. However these were corrected in the subsequent campaigns. Steam also had an M-Coupon service at the Helsinki airport. For example in a case where the flight was delayed, passengers were issued M-Coupons to be used in the airport restaurants, and the redemption mechanism was easy to use for passengers and restaurant staff. Hence the operations and challenges predicted seem to match with Steam's M-Coupon campaigns thereby establishing the relevance to the literature review.

However, as discussed - integrating M-Coupons to other forms such as Location-Based services or In-application advertising has not yet been explored by Steam. Steam has not yet invested their operations in these forms due to the following reasons: lack of resources to implement the operations, in-sufficient time and clarity from their customers to believe in the future potential of location-based services and In-application advertising. Hence only the SMS and M-coupons seem to be the relevant forms of mobile advertising as employed by Steam.

The above discussion concludes the investigation on Steam's relevance to the forms of mobile advertising stated in chapter 4 and Table 3 summarized Steam's relevance to the forms of mobile-advertising.

7.2 Data Analysis – Luxus

As stated in section 5.5 the data analysis will be performed by employing pattern matching technique. Hence the analysis will compare an empirical based pattern from literature review with Luxus operations. As per the literature review factors affecting mobile adoption include Branding Strategy, Service Costs, Personalization and Privacy, and Platform. Forms of mobile advertising include SMS, M-Coupons, Location-Based Services and In-Application advertising. Table 4 gives quick glance on relevance of these factors with respect to Luxus explained as follows.

Table 4 Luxus's relevance to factors affecting Mobile Advertising adoption

Factors affecting Mobile Advertising adoption	Luxus's Relevance
Branding Strategy	Yes
Service Costs	Yes
Personalization and Privacy	Yes
Platform	No

The analysis shall begin with finding relevance to factors affecting mobile advertising adoption and subsequently on forms of mobile advertising.

Branding Strategy:

Whether the goal is to acquire new customers or strengthen the existing ones, sales promotion or launching a new service, adding the mobile dimension to the brand-building campaign is an effective and interactive way to organize the campaign. It helps in getting the instant response and provides a channel for customer follow-up [1, 43]. Based on the data presentation in section 6.2 there were no campaigns conducted with the primary goal being to enhance the brand value. Thus, according to the respondent no relevance could be established with respect to this factor. Also as stated by the respondent Luxus perceives this as an opportunity than a real barrier. According to the respondent it will be one of the value adds if the brands match.

However considering Luxus Nokia Music campaign which was to launch online an Nokia Music store product, adopting the mobile medium extended the campaign and supported activation of the Nokia Music accounts. Hence in this case, when the goal of the campaign was to launch a new product adopting a mobile medium enhanced the results. Thus, relevance can be established as per the literature review.

Service Costs:

As discussed in chapter 2, as mobile advertisements are transmitted through air, they incur costs and the delivery charges cannot be pushed onto users as it might most likely result in rejection of ad [1, 25-26]. Hence the advertisers and operators are on constant hunt for options to steer a model that generates profitable returns. As per the data presentation in section 6.2 Luxus considers this a barrier especially in countries where there is no smart phone penetration. Luxus opines that the steering model needs to be established by the operator to surpass this barrier. Hence, since it is a challenge to examine whether load is handled by the user, advertiser or operator, relevance can be established that this is a barrier affecting the mobile advertising adoption.

Personalization and Privacy:

As per the literature review in section 3.3 combining push and pull advertising mechanisms might be an effective means to achieve a mobile dialogue, passing on the con-

trol to the user, stating the privacy policies clearly before the opt-in, might aid in the better personalization. Luxus agrees to this and user opt-in is a pre-requisite for their campaign. According to the respondent one should not cross the line of privacy. Luxus will get the database from their clients after all legal requirements are met. Since the opt-in handling is done by the clients, in this case probably they do not see it as a real barrier. However considering the fact that it is a pre-requisite for the execution of the campaign, relevance can be established to Personalization and Privacy as a factor affecting mobile advertising adoption.

Platform:

As mentioned in section 3.4 platform refers to type of advertisement, type of handset and corresponding development environment (SDK). Luxus core operations are in digital services based and web implementations. Therefore, Luxus does not encounter this as a barrier in their operations. However even for mobile operations, according to the respondent development of mobile advertisement for several platforms is perceived as an effort in the implementation rather than a barrier. This can also be derived from their services implemented for several versions of Symbian phones and across several countries. They developed custom variants of their advertisements for different versions of Symbian phones. In this case they considered implementation of several variants as one of the execution steps rather than a barrier. Based on the data presentation in section 6.2 with respect to Finnair and the Lumene campaigns it can also be inferred that because most of their campaigns are SMS or mobile coupons based, which can be executed independent of the platform, they did not encounter yet this as a barrier. Hence, no relevance can be established with respect to this factor.

This concludes the data analysis with respect to Luxus's relevance on the factors affecting mobile advertising and Table 4 summarized the data. To get an understanding of the forms of mobile advertising Table 5 shows the Luxus relevance to the forms of mobile advertising which will be justified in the following sections.

Table 5: Luxus's relevance to forms of mobile advertising

Forms of Mobile Advertising	Luxus's Relevance
SMS	Yes
Mobile Coupons	Yes
Location-Based Services	No
In-Application Advertising	No

SMS:

As stated in section 4.1 SMS is one of the basic features of any phone. It passes on the control to the user and provides a scope for personalization. Luxus though does not see this as the primary form of advertising; they had a few successful campaigns with this as stated in section 6.2. According to respondent SMS is available on every phone and users need to opt in to receive the marketing messages. From the Finnair campaign it can be inferred that, they see this form of advertising as safe and easy to implement as it surpasses the barrier of platform, personalization and privacy. Hence relevance can be established to this form of advertising. However, they have explored other advertising forms such as Mobile Coupons but unlike Steam, Luxus's M-Coupons are not integrated to SMS but based on NFC.

Mobile Coupons:

As discussed in section 4.2 Mobile Coupons or M-Coupons are the electronic tickets that are delivered to the consumer's mobile phone, which can be exchanged for a financial discount when purchasing a product or a service. Luxus integrated this into web-based advertising. Luxus also provided the redemption equipment for easy execution of the campaign. From the Nokia or Lumene campaigns discussed in section 6.2 it can be inferred that M-Coupons can be integrated into other forms that are web-based. If the redemption mechanism is established in advance, it can have added benefits. For example in this campaign the benefit was to get the inventory data updated to the Lumene's database. Hence relevance can be established that this is one of the forms used for mobile advertising. However as per literature review Mobile Coupons can also

be integrated it into other forms such as Location-Based services or In-application advertising. This has not yet been explored by Luxus.

Location-Based Services:

As discussed in section 4.3, location-based services determine the location/position of the user using technologies such as GPS, control plane, GSM, RFID and use the information to provide personalized applications and services. Since the mobile phones are always on the move and information can be dynamically updated it provides a unique channel to provide meaningful information that the user is looking for. Unlike providing information, the Luxus NFC campaign was used for a product marketing campaign where free goodies were presented to users who were in same location as the NFC gift vending machine. Users who were in the same location had access to this. However this cannot be considered to be purely location-based advertising since the primary mission of the campaign was to promote a product at a stationary location. There was no dynamic data (as in updating the information on the move based on the user's location) involved in this campaign. Hence as per the literature review no relevance can be established with respect to this form of advertising. Since Luxus does not employ In-Application advertising, there were no cases to be discussed with respect to this.

7.3 Cross-Case Synthesis

Relevance to the factors and forms of mobile advertising with respect to each of the cases was done in the previous sections. As stated in section 5.5 cross-case synthesis is about analyzing the data across multiple cases which might result in robust results rather than a single case. The aim of this analysis is to draw an analogy of the factors affecting the mobile advertising and to understand forms of mobile advertising that are in use. In the context of this study, based on the data collected and presented in chapter 6 and the analysis of each of the cases above, this section focuses on investigating and comparing the data analyzed across the two cases. The practical relevance to the factors and forms of mobile advertising derived from the literature review is analyzed and compared to the implementation in the case studies.

Analysis of factors affecting mobile advertising adoption

As per the data presentation in section 6.1 and section 6.2, when the goal of the campaign was to launch a new product or strengthen the brand value, according to the respondents the sales were content. This can be inferred from Steam's M &M campaign and Luxus's Nokia Music campaign. Thus it can be inferred that either directly or indirectly the Branding strategy would be a factor affecting mobile advertising adoption only if the goal of the campaign was to launch a product or strengthen the brand value. It is not the key element if the mission of the campaign was to improve sales or engage the customers for which the M-Coupon was more suitable. This can be derived from cases such as Steam's Finnair M-Coupons or Luxus's NFC based M-Coupons for Nokia.

Both the companies stated implementing the campaign at a cheaper cost is a driving challenge. If the campaign needs access to the user data, it is not possible to execute without taking the consent from the user. Hence it could be suggested that service costs, personalization and privacy are the common factors affecting the mobile-advertising adoption as both the cases agreed to the fact that it is difficult to execute the campaigns without the user consent and at cheaper costs.

However, in both the cases platform-chosen does not seem to be the factor that could impact the decision of choosing mobile as advertising medium. Both the respondents said that the choice of the platform/platforms was proportional to the implementation efforts but it would not impact their adoption of a mobile as the advertising medium. This could be because the companies do not employ In-application advertising as one of the advertising forms. The results might differ if the case study was chosen to be an organization specialized in In-application advertising.

The other stated factors from the respondents included awareness of the potential in mobile-advertising and readiness of the market to embrace the convergence of the technological elements. These stand as barriers to convince their customers to adapt the mobile as an advertising medium.

Hence, to draw an analogy, service costs, personalization and privacy seem to be the most common factors within the two case studies that could affect mobile advertising adoption. However if the goal of the campaign is to strengthen the brand value, then branding strategy will be considered as a factor affecting the mobile advertising adoption. Platform was not found to be a factor affecting mobile advertising adoption. This discussion is summarized in Table 6.

Table 6 Relevance of case studies to factors affecting the Mobile Advertising adoption

Factors Affecting Mobile Advertising Adoption	Steam's Relevance	Luxus's Relevance
Branding Strategy	Yes	Yes
Service Costs	Yes	Yes
Personalization and Privacy	Yes	Yes
Platform	No	No

Analysis of the forms of mobile advertising

Both the cases had success stories with the SMS form of advertising. Both the cases stated that it had been the traditional way and it was considered to be safe and easy to implement. As per the literature review and from the case study analysis the reasons behind adopting this form were that SMS is not brand specific, minimal service cost for the user and advertiser, it provides a scope to personalize, user consent is taken before sending the message and it is independent of the platform. Basically it surpasses all the factors that could affect mobile advertising adoption.

M-Coupons were the next widely used form of advertising in both the cases. As per the literature review this is one form that can be easily integrated into SMS. For the organizations to implement this, it could be an extension to their SMS platform. Steam had an established SMS platform; hence this was a natural extension to their advertis-

ing forms. Luxus was specialized in digital services and they had integrated it to NFC and web based advertising. Therefore, it could be an extension to the existing advertising form employed by an organization.

Location-based services and In-application advertising were not explored as much as SMS or Mobile Coupons. Possible other forms of mobile-advertising found from the case studies were integration of videos, web and digitalized services to the mobile platform. This discussion is summarized in Table 7

Table 7 Relevance of case studies to forms of Mobile Advertising

Forms of Mobile Advertising	Steam's Relevance	Luxus's Relevance
SMS	Yes	Yes
M-Coupons	Yes	Yes
Location Based Services	No	No
In-Application Advertising	No	No

To draw an analogy, SMS and M-Coupons were the common forms of mobile advertising within the two case studies Steam Communications and Luxus. However SMS could be a stand-alone form whereas M-Coupons could be integrated to the existing forms of advertising. Location-based services and In-application advertising were not yet explored by the case studies due to awareness of the potential in mobile advertising and readiness of the market to embrace the required technological infrastructure to implement these forms.

8 Results and Conclusions

The purpose of this thesis was to gain an understanding of how companies adopt the mobile phone as an advertising medium. The literature review aided in framing a draft on the factors and forms of mobile advertising. Considering the scope of the thesis work branding strategy, service costs, personalization and privacy, platform were considered to be the factors that can affect mobile-advertising adoption and few possible forms to advertise on mobile were derived to be SMS, Mobile coupons, Location-based services and In-application advertising.

To provide more credibility to research case study was employed as research strategy where data was collected by Interviews and transcription. Two case studies were conducted, one on Steam Communications and one on Luxus, which have the mobile as one of their advertising media. Data was analyzed using pattern matching and cross-case synthesis techniques. A single case analysis was performed using the pattern matching technique and an analogy was drawn that branding strategy, service costs, personalization and privacy are factors that affect mobile advertising adoption and forms of advertising on mobile include SMS and M-Coupons. Since the case studies had not established location-based services and In-application advertising, no relevance was found with respect to those forms. Cross case synthesis further strengthened the hypothesis from the literature review.

However apart from above stated factors and forms of mobile-advertising, both companies stated that awareness of the potential in mobile advertising, readiness of the market to embrace the latest technological integration into mobile were additional factors that could affect mobile-advertising adoption. Possible other forms of advertising on mobiles could include integration of videos, web and digitalized services. This interpretation was based on two case studies of companies which are located in Finland, specialized in SMS and digital services. The results would vary if companies specialized in other forms were chosen. Hence the study could be extended to different companies and markets to gain further understanding of how companies adopt mobiles as an advertising medium.

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Appendices

Appendix 1: Links to applications mentioned in Chapter 3, 6, 7

Microsoft store in United States. Can be accessed from <http://www.microsoft.com/en-us/default.aspx> Last accessed November 15, 2012.

Skype website. Can be accessed from <http://www.skype.com/intl/en/home> Last accessed November 15, 2012.

Google website. Can be accessed from <https://www.google.com/> Last accessed November 15, 2012.

DoubleClick website. Can be accessed from <http://www.google.com/doubleclick/> Last accessed November 15, 2012.

Youtube website. Can be accessed from <http://www.youtube.com/> Last accessed November 15, 2012.

Twitter website. Can be accessed from <https://twitter.com/> Last accessed November 15, 2012.

Tweetdeck website. Can be accessed from <http://www.tweetdeck.com/> Last accessed November 15, 2012.

Nokia website. Can be accessed from <http://www.nokia.com/fi-fi/> Last accessed November 15, 2012.

Here website. Can be accessed from <http://here.com/> Last accessed November 15, 2012.

Steam Communications website. Can be accessed from <http://www.steam.fi/> Last accessed November 15, 2012.

Luxus website. Can be accessed from <http://www.luxus.fi/> Last accessed November 15, 2012.

Steam's M &M Campaign link. Can be accessed from http://www.steam.fi/asiakkaat/mars_finland/ Last accessed November 15, 2012.

Interviews:

Tero Kalsta, Managing Director - Steam Communications. 25.05.2012, 11:00 - 12:30, Eerikinkatu 27. Steam Communications, 2000-2012.

Mikko Torstila, Global Client Lead - Luxus.. 24.07.2012, 14:30-16:00, Bulevardi 44, Helsinki Finland. Luxus, 2001-2012

Appendix 2: Interview Guide

Interviewee Name:

Designation:

Experience with XX:

Place and date:

Contact details:

Questions related to mobile advertising:

1. What is the company background?
2. Who are the partners of XX?
3. What are XX's main operations?
4. What are the various forms of advertising used by XX?
5. What is your opinion on mobile advertising in general?
6. What are XX's operations with respect to mobile advertising?
7. What are the factors that XX considers as barriers for mobile advertising?
8. What are the main forms of mobile advertising used by XX and why do you use them?
9. What is the XX's relevance to following barriers in mobile advertising?
 - Branding Strategy
 - Service costs
 - Personalization & Privacy
 - Platform
10. What is the relevance to the following forms of mobile advertising in their daily operations?
 - SMS
 - M-Coupons
 - Location Based Services
 - In-App advertising
11. What are future plans of XX with respect to mobile advertising?

XX: Refers to the name of the company

The interviews are transcribed and can be provided for reference if needed.