Mobile Display Advertising and Consumer Privacy

Mobile Ad Networks approach to Privacy, and their point of view

Author: Fredrik Helander
Supervisor: Per Nilsson
Abstract

Research question: To what extent is mobile/SMS advertising privacy norms, associated with permission, relevance and control, applied to mobile display advertising contexts by mobile ad networks? How is this motivated?

Purpose: The purpose of this thesis is to work as an initial step in the process of establishing what privacy norms that should be applied by mobile ad networks in mobile display advertising contexts. Insights generated, regarding potential impacts of the rapid development within the mobile advertising industry on how privacy issues are handled by mobile ad networks, are desired outcomes. Such outcomes could then potentially be used as a foundation for future research within the field.

Theoretical framework: The theoretical framework of this study is based on previous research regarding mobile/SMS advertising.

Methodology: I have applied a qualitative research strategy and an inductive research approach. Furthermore an interpretivistic epistemological position was taken and a constructionist ontological position. The research is designed as a multiple case study. The sample consists of the two mobile ad networks Ericsson and Inmobi. The companies were interviewed using semi-structured interviews.

Results: Based on the findings, my answer to the research question is that mobile/SMS advertising privacy norms associated with permission relevance and control is only partly applied in mobile display advertising contexts. The reasons for applying/not applying the norms are all reasonable. There is no doubt about that the ad networks acts are greatly influenced by wanting to uphold consumer privacy. Established through the findings in this study is that the change within the mobile advertising industry, associated with new forms of advertising being available for advertisers through the medium and what information that is being collected about consumers, do have an effect on what privacy norms that are being applied. I view this as the main scientific contribution of this study.
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Definitions

Apps = Software applications

App platforms = Platforms on which apps are distributed, i.e. iPhone, Android, Symbian, RIM, etc.

Banner ad = A graphic web and mobile web advertising form.

Display ad = Ad placed within or next to content

Opt-in = Consumer give their consent to receive advertising and potentially reveal various personal data

Opt-out = Consumers withdraw from receiving advertising

Permission-based mobile advertising = Advertising executed only after getting consumer consent

Publisher = Owner of ad space

Pull advertising = Ads explicitly requested by a consumer

Push advertising = Ads not explicitly requested by a consumer

Rich media = Interactive multimedia (Wikipedia, 2011A)

Smartphone = a mobile phone that offers more advanced computing ability and connectivity than a contemporary basic feature phone (Wikipedia, 2011B)

Spam = Irrelevant, unsolicited and intrusive advertising
Chapter 1 Introduction

In this chapter the topic of the thesis will be defined as well as the purpose of it and for whom it is interesting. Delimitations are furthermore included.

1.1 Background

Mobile marketing was enabled through the birth of the mobile medium. The development of the mobile medium is a result of the rapid adoption of mobile phones during the past one and a half decade. The leading form of mobile marketing is mobile advertising (Scharl, Dickinger and Murphy 2005, p.164). Not long ago, there used to be a time when mobile advertising was more or less synonymous with SMS advertising. However, there is a wind of change blowing. The potential of the mobile medium is growing as a result of the adoption of a new type of mobile phone, the Smartphone.

However, let us start by looking at the short history of mobile advertising and what it has contributed with in terms of knowledge about what drives consumer acceptance.

Consumer acceptance of mobile advertising is associated with value creation. In order to create value for an economic ecosystem, the key is to create value for consumers. No matter where in a value chain a company is positioned, ultimately, all companies are depending on end-users consuming a product or service. By consuming, consumers in some way feed companies their necessary nutrition, money. However, consumers will not consume if value is not offered. In a mobile advertising context, I view consumer acceptance as a sign of the advertising being value adding. If the advertising is considered to be value adding, it will stimulate consumption. Consumer acceptance is therefore the key to create value for the entire ecosystem.

The mobile medium has unique features and potential, in terms of value creation for mobile advertising ecosystems, created by it being a channel enabling more or less constant possibility to reach consumers. Furthermore, mobile phones being personal items also enable personalized marketing, 1 to 1. This has been differentiating the mobile medium from media used for mass marketing.

Although the unique features of the mobile medium creates great opportunities related to advertising value creation, there are also risks associated with wrongly executed campaigns. In particular, privacy concerns can easily arise. Privacy is by Rust, Kannan, and Peng (2002, p.456) defined as “the degree to which personal information is not known to others”. By Chaffey (2009, p.209), it is defined as “a moral right of individuals to avoid intrusion into their personal affairs by third parties”. These two definitions differ in the sense that the first one refers only to personal information that is actually known to third parties, whereas the second one in addition refers to a right to control the information. For the purpose of this thesis I will comply with the latter definition.

Researchers have, especially during the past decade, developed and established norms, associated with privacy, for how to drive consumer acceptance of mobile advertising. These has been important norms to follow in order to obtain successful campaigns without advertisers suffering from negative effects on brand image due to violation of consumers’ privacy. The
research available is primary concerning SMS-advertising. The dominating norms developed are all related to three privacy factors, which are somewhat inter-related. Those are: general Permission from consumers to send ads to them, Relevance of ads and consumer Control of personal information. These factors will be frequently re-occurring throughout this thesis.

Regarding permission and relevance: Approximately 88% of respondents in Bamba and Barnes (2007, p.825) believe that it is important to give their consent before receiving SMS ads. In Dickinger et.al (2005, p.167-168) interviews with experts on SMS-marketing were conducted and all agreed on that permission is needed before sending ads to consumers, which further highlights the importance of permission. In addition, findings in the study emphasize the importance of relevance and personalization of ads since this is more and more expected by consumers. Personalization could be done in terms of time, location and preferences of the consumer. This is supported by Barwise and Strong (2002, p.17-18). In the study it is determined that consumers expect ads to be highly relevant in order to accept SMS ads.

Regarding control: Bamba and Barnes (2007, p.826) found out that to be in control of to whom personal information is given, is the second most important factor for consumers to give their consent to receive SMS ads. Dickinger et.al (2005, p.168) discuss the privacy concerns that arise with the necessary data collection associated with personalized advertising. The importance for companies executing campaigns to take this into consideration is emphasized. Unni and Harmon (2007, p.8), in their study regarding location based advertising (LBA), argue that LBA push advertising would be more intrusive than LBA pull advertising even if the consumer is opted-in. This since a feeling of being tracked might occur i.e. an unpleasant feeling of others knowing where you are. The findings indeed showed that privacy concerns are greater for LBA push advertising compared to LBA pull advertising (Unni and Harmon, 2007, p.14). Marketers accordingly face a challenge in making advertising relevant to consumers’, which for example could be accomplished with help of targeting ads based on a consumer’s location, but at the same time non-intrusive, which might be the result of consumers getting a feeling of being tracked. Consumer control is therefore highly important.

1.2 Problem Formulation

Today mobile advertising is so much more than text messages sent to consumers. This is highly associated with an ongoing rapid increase of Smartphone users in markets such as USA and Europe. The increased Smartphone adoption leads to an increase in mobile phone browsing. Europe is for example expected to have a Smartphone penetration rate of 92% in the year 2014, and the same year mobile web browsing is expected to exceed PC browsing (The Telegraph, 2010). In January 2010 the average penetration rate of Smartphones of the five biggest countries in Europe was approximately 23% (Marketingcharts.com, 2010) and in Q2 2009 it was approximately 17% (Nielsen, 2009). The penetration rate trend is similar in the US. The rate in Q2 2009 was 16%, in Q2 2010 it was 25% and in late 2011 Smartphones is expected to have a penetration rate of more than 50% of mobile subscribers (Nielsen, 2010A). This is indeed affecting mobile advertising and what it is about. Mobile advertising is today a mix of what used to be online advertising and SMS/MMS advertising etc. A traditional online form of advertising that is now also available through the mobile medium is display ads. There are two different kinds of mobile display ads, in-app and mobile web.
The latest trend within mobile advertising is in-application advertisements, or simply in-app ads. In-app ads are basically display ads within apps. An increased interest for this form of advertising can be seen among advertisers. The growing interest is related to the growing adoption of Smartphones among consumers. This since growing adoption leads to more apps distributed, i.e. greater reach for advertisers.

Another factor awakening advertisers’ interest is new innovative networks. Apples iAd is one of the most creative networks. When clicking on a banner provided by iAd, the ad expands to full screen and is filled with interactive rich media content (Tsirulnik, 2010). With iAd ads, the aim is to increase engagement of consumers (Luxton, 2010) which the rich media format surely enhances. In-app display ads together with mobile web display ads are in focus in this study. Mobile web display ads are for example banners that can be seen when browsing mobile web sites. This form of advertising is also given more attention due to the adoption of smartphones and increased mobile web browsing, and have the same potential of rich media content when interaction occurs. These two forms of mobile ads will from now on be referred to as mobile display ads.

In figure 1, important players in mobile display advertising ecosystems can be seen. Those are: App developers/publishers, App platforms (owners), Consumers, Mobile operators, Advertisers, which sometimes are represented by media agencies and consult creatives to create ads, and Mobile ad networks. Players that are included in in-app and mobile web display advertising ecosystems, and the role of the players will be covered in chapter 2. However, I want to clarify that in this study, mobile ad networks are in focus since those companies are the ones providing mobile display ad solutions. Examples of important mobile ad networks are Admob (owned by Google), iAd (Apple), Millenial, Inmobi and Jumptap.

This thesis is about how mobile ad networks view privacy issues in mobile display advertising contexts.

Since mobile display advertising has up until recently been a concept not given much attention, research on how privacy matters are and should be treated in such a context is what I am aware of not existing. Considering the ongoing change within the mobile advertising industry, interesting to know is what strategies, with respect to consumer privacy, that are applied by mobile ad networks that serve mobile display ads today. Do the privacy norms for execution of
successful and non-intrusive mobile/SMS advertising campaigns’, associated with permission, relevance and control, apply to a mobile display advertising context? Are the norms applied by mobile ad networks?

1.3 Research Question

- To what extent is mobile/SMS advertising privacy norms, associated with permission, relevance and control, applied to mobile display advertising contexts by mobile ad networks? How is this motivated?

1.4 Purpose

According to my point of view, the establishment of what privacy norms that should be applied by mobile ad networks in mobile display advertising contexts is a two step process. Step number one is to find out if traditional mobile advertising privacy norms are applied and why/why not that is the case. This by investigating ad networks point of view. The second step is to conduct surveys on what the opinions of consumers are i.e. if there are any additional privacy factors that needs to be taken into consideration that are specific for mobile display advertising contexts.

This study is thereby associated with step number one in the two step process. Insights generated, regarding potential impacts of the rapid development within the mobile advertising industry on how privacy issues are handled by mobile ad networks, are desired outcomes. Such outcomes could then potentially be used as a foundation for future research within the field. The purpose of this thesis is therefore to work as an initial step in the process of establishing what privacy norms that should be applied by mobile ad networks in mobile display advertising contexts.

1.5 For whom is this thesis written?

This study is primary meant for mobile ad networks, but also for other players in mobile advertising ecosystems e.g. mobile operators, publishers and advertisers.

1.6 Delimitations

The focus of this study is only on mobile display ads, such as banners and text ads that are being pushed on consumers’ (see the definition sheet for my definitions of push advertising). Furthermore, only ads advertised by brands are considered in the study, i.e. not house ads of app developers or other forms of in-app advertising and mobile display advertising.
Chapter 2 Mobile Display Advertising

In this chapter, background information regarding mobile display advertising will be presented. Ecosystems of in-app display advertising and mobile web display advertising as well as other relevant high level information will be provided. This is in order to give the reader a more comprehensive understanding of the advertising forms that are in focus than was possible to obtain through the introduction chapter. It should be noted that in-app display ad and mobile web display ad ecosystems usually are not discussed as two separate ecosystems, but as one mobile ad ecosystem. However, I have chosen to distinguish between them in this chapter in order to highlight some specific characteristics of each mobile display advertising form.

2.1.1 In-app Display Advertising Ecosystem

A high level illustration of the in-app display advertising ecosystem can be seen in figure 2. It include: Mobile ad networks, App developers, App platforms, Consumers, Mobile operators and Advertisers. In the following sections the role or function of each and every one of the parties of the ecosystem will be explained.

I want to emphasize that the ecosystem I illustrate in figure 2 and describe in the following sections is my own generalization. It may in reality therefore differ a bit from what is described here. The purpose of the following sections is to give the reader a high level understanding of interactions among actors within the ecosystem, i.e. not to give in-depth explanations of transactions.

2.1.2 App Platforms in an in-app display ad ecosystem

App platforms, or mobile platforms, are the platforms on which apps are distributed. Platforms are mainly discussed in terms of mobile operating systems (OS). Blackberry and iPhone are two exceptions. These are device brands, but since the operating system they run are device brand specific, these platforms are discussed in terms of device brand instead of OS. There are several
platforms, but the biggest ones on a global level in May 2010 was: Symbian with a market share of 44.3%, Blackberry (RIM) with 19.4%, iPhone (iOS) 15.4%, Android 9.4% Microsoft windows mobile 6.8% and Linux with a 3.7% market share (Gartner, 2010).

If looking at specific markets, the market shares varies widely though. While Symbian is the most used operating system in Europe, the market share in the US was approximately 2% in Q3 2010. On the US market, Blackberry and iPhone are the biggest platforms with market shares of 30 and 28% respectively. Android is also coming strong with a market share of 19%. (Nielsen, 2010B)

The actual distribution of apps on these platforms is done through numerous app stores. In addition to stores provided by app platform owners, such as Apples app store for iPhone and Google’s Android market for Android phones, operators, device manufacturers etc. have their own stores (Reardon, 2010). App platform owners provide software development kits (SDKs), which is a tool kit for app development. SDKs are used by app developers. App developers’ role in the ecosystem follows in the next section.

2.1.3 App developers in an in-app display ad ecosystem

App developers create apps that are distributed on app platforms with help of SDKs. The characteristics and level of commercial motives of app developers differ a lot. A developer could be a big company, but also somebody developing apps as a hobby. App developers, regardless of their characteristics, obviously serve a very important purpose within the in-app ad ecosystem since they provide apps, which is what generate in-app ad space owned by developers, which makes them publishers. Furthermore apps are highly valued by consumers due to the possibility to personalize Smartphones they provide (Hernandez, 2010, p.42), making them important for app platform owners and other app store providers.

2.1.4 Mobile ad networks in an in-app display ad ecosystem

Mobile ad networks are, in an in-app advertising context, companies that serve apps with ads. Some networks are owned by a mobile platform owner, e.g. iAd (Apple) and Admob (Google). There are however, also several independent networks, which are not owned by a mobile platform owner. Independent networks are not developing/distributing mobile devices, operating systems or developing environments (Rao, 2010).

Ad networks provide technical platforms for serving ads. The platforms can for example include ad developing tools, targeting engines and ad servers. SDKs is also provided. The SDKs provided by mobile ad networks and app platform owners are used by app developers to create apps as already mentioned. However, they also enable developers to include ads in their apps, which then are served by the mobile ad network who’s SDK was chosen by the developer. Mobile ad networks furthermore aggregate publishers’ ad space, in this case app developers ad space within apps, and work as a broker in selling it to advertisers/media buyers.
2.1.5 Mobile Operators in an in-app display ad ecosystem

Mobile operators play an important role in some mobile ad networks, and therefore also in the in-app advertising ecosystem. This since they possess extremely valuable information about end-users that can be used for targeting purposes. They possess information about past browsing behaviour and other behavioural data, they also have billing relationships established with end-users and possibility to find out the current location of consumers (Comverse, n.d.). This kind of information identifies individual users and enables delivery of targeted, relevant and value-adding advertising.

Not all ad networks are depending on operators though. One example of an exception when it comes to dependability on operators is IAd. Since iPhone owners need to sign up to iTunes to download their apps, they reveal information about themselves that is owned by apple. This information is similar to the one possessed by operators´, and iAd is therefore operator independent. (Johnson, 2010)

2.1.6 Advertisers and Consumers in an in-app display ad ecosystem

Advertisers and consumers are the ones that need to be pleased in order to make the ecosystem work. They contribute with money. Advertisers are contributing by investing in in-app advertising. Consumers are the ones stimulating these investments. This they do by downloading apps through app platforms, and responding to advertising in the apps by consuming. Interaction between consumers and advertisers is also enabled by interactive in-app ads supplied by mobile ad networks. The interaction is for example enabled by mobile ad tools. Examples of such ad tools provided by the mobile ad network Goldspot media, are click to call, click to download and click to SMS functions in ads (Goldspot media (n.d)).

2.2 In-app Advertising – A way to monetize free apps

As discussed in section 2.1.3, apps are highly valued by consumers. They are therefore increasingly used and downloaded. Mobile apps are however not as new as the growing interest for them. Apps have existed since the late 1990s (Sharma, 2010, p. 3). The growing interest for apps is, as discussed in chapter 1, associated with the growing adoption of Smartphones.

Monetization of apps is something most app developers are concerned about. There are multiple ways to achieve this. The most common way is to charge end-users a fee per download. (Hernandez, 2010, p.42) However, since there are a lot of free apps available, consumers are used to not having to pay for apps, and many consumers are likely to be reluctant to do so. Apps free of charge are therefore needed, which developers have difficulties to supply (Luxton, 2010), they need ways to monetize free apps. In-app advertising is a way of doing that.

This form of advertising is getting more and more popular due to the increased usage of mobile apps. The rate of free apps in the different app stores ranges between 15% (Nokia’s Ovi store) to 57% (Android market) (Hernandez, 2010). For the competitiveness of platform owners and other app store providers’, it is important to be able to supply a rich amount of quality apps, some for free for consumers reluctant to pay for them. It is therefore also in the best interest of app store providers that app developers can monetize their free apps and thereby keep supplying apps free of charge. Mobile ad networks therefore give app developers the majority of the revenues
generated by in-app ads, e.g. if served by iAd, developers get 60% of the revenues (Apple, 2010).

2.3.1 Mobile Web Display Advertising ecosystem

In figure 3 an example of a mobile web display advertising ecosystem can be seen. Similar to the in-app advertising ecosystem presented, this conceptualization of a mobile web advertising ecosystem is my own generalization and ecosystems can in reality look a bit different. Giving the reader a high-level understanding of interactions among players within mobile web ad ecosystems is the motive behind including the following sections. Furthermore, some similarities and differences compared to in-app ad ecosystems will be highlighted.

![Figure 3 – Mobile web display advertising ecosystem](image)

2.3.2 Publishers in a mobile web display ad ecosystem

Publishers are the ones that own and provide ad space. In this context they are mainly mobile site owners. The amount of traffic on different mobile sites obviously differs a lot, and so does the price of advertising on them. Mobile sites with a lot of traffic, and owned by famous brands are called premium publishers. These sites are the most expensive sites to advertise on and advertisers are normally charged on a cost per thousand impression (CPM) basis. Premium publisher sites could for example be big newspapers and they are usually used for brand advertising purposes (i.e. for creating or maintaining awareness of a brand). Most publishers are however small and independent, and on such sites advertisers are mainly charged on a cost per click (CPC) basis. This is since performance advertising is the kind of campaigns mainly being executed. Performance advertising in this context means that the aim of advertisers is to get consumers to interact with their ads by clicking on them. (mobiThinking, 2010A) Measurable results of campaigns are then obtained due to the interaction being observable and generating data that can be used for statistical analysis.

2.3.3 Mobile Operators in a mobile web display ad ecosystem

Operators’ role in mobile web display advertising ecosystems is similar to the role they have in in-app ad ecosystems. As explained in the section regarding in-app advertising, mobile operators
can provide mobile ad networks with user-data which is used for targeting purposes. Furthermore, not all ad networks are depending on operators and their role in the ecosystem is therefore sometimes very important and sometimes not important at all as also already explained.

Specific for the mobile web advertising context is that operators possess ad space, e.g. on their own mobile web portals, and they therefore also act as publishers. This additional role of operators constitutes the main difference between the function of the operator in a mobile web display ad ecosystem compared to an in-app advertising ecosystem.

**2.3.4 Mobile Ad Networks in a mobile web display ad ecosystem**

The mobile ad networks basically have the same role as in in-app ad ecosystems. They provide a technical platform for serving ads, aggregate ad space and connect advertisers and publishers. Worth mentioning, associated with premium publishers and independent publishers that were discussed in section 2.4.2, is that there are different kinds of ad networks focusing on different kind of publishers. There are premium networks which focus solely on selling premium publishers ad inventory. This kind of space is sold to advertisers, which are in control over where there ads are displayed. In contrast, there are blind networks, these networks focus on serving ads on independent mobile sites and in applications. Advertisers cannot control exactly where their ad will be displayed as the name of the network implies. A third form of ad network is called premium blind networks. These networks basically provide possibilities for advertisers to do advertising both on premium publishers’ sites and on independent sites and in-applications. (mobiThinking, 2010A)

**2.3.5 Advertisers and Consumers in a mobile web display ad ecosystem**

Advertisers and consumers also basically have the same role as in in-app ad ecosystems. They provide money. Consumers do that by responding to advertising by interacting with ads and advertisers and by consuming which stimulate advertisers to spend money on the advertising. That’s the way the ecosystem is maintained. Interaction can occur through the same kind of mobile ad tools used in in-app ad contexts.

Characteristics of advertisers can differ depending on what kind of ad network that are serving the ads. Premium networks usually have big brands advertising through them since they provide more expensive ad space (mobiThinking, 2010A). On the contrary, blind networks provide cheaper ad space that attracts brands with smaller ad budgets.

**2.4.1 Mobile display ad formats**

The formats of in-app display ads, displayed within the content of an app, can vary greatly between app platforms. However, there are a few formats that are supported by most or all platforms and could therefore be seen as standard formats.

In-app ads, in their most basic form, take the shape of a banner. In a study conducted by the interactive advertising bureau (iab), it is established that the most common format of a banner across app platforms is 300x50 pixels and the second most common is 320x50 pixels. To put this into a context, the size of an iPhone screen is 320x480 pixels. In addition to banner ads there are
also full screen ads. The most common full screen format across platforms is the same size as the screen size of the iPhone, 320x480 pixels. (iab, 2010, p.2-3) A full screen ad could for example be displayed as a prestitial or interstitial (jumptap, n.d.). A prestitial is showed before the actual app content and an interstitial is showed while loading new content within an app.

There are also expandable formats available. This means that if a banner is clicked on, the ad will expand to a bigger format. The formats can vary a lot and no format is standing out from the rest in terms of support (iab, 2010, p.3). However, the biggest possible an ad can expand to is obviously full screen. Two examples can be seen in figure 4. The two most common banner formats are the darker blue areas in figure 4. When those are clicked on, the ad will expand. The picture to the right in figure 4 represents an ad expanding to the size of an iPhone full screen.

The formats available for mobile web display advertising are basically the same as the ones presented regarding in-app advertising formats. The actual sizes can however differ somewhat from what was presented in that section. The formats available are mainly banners, expandable banners (IAB, n.d) as well as interstitials and prestitials. In figure 5 an example of an expandable banner can be seen, when the banner in the picture to the right is clicked on it expands to full screen.
2.4.2 Mobile display ad content

The content of mobile display ads ranges from very simple text to very sophisticated and highly interactive rich media content. The latter type of content is very much associated with Apple’s platform iAd, which was launched during summer 2010 and serve in-app ads. Convenient from a user perspective is that a separate mobile site does not have to be loaded in order to access the rich media content served by iAd, as is the case with other networks, it is displayed within the app (Johnson, 2010). Rich media content in in-app ads as well as in mobile display ads, are likely to become more and more popular, and apple is definitely not the only company focusing on this kind of content. Say media is another example of a company providing highly interactive ads with rich media content (Say media, n.d.)

A drawback with the rich media content is that it can be expensive to develop such ads (Johnson, 2010, p.12). Ads with less rich content such as text ads could therefore not be expected to disappear.
Chapter 3 Theoretical Framework

In this chapter the theoretical framework for this study will be established. The chapter starts with a brief history of advertising and the content is then led into mobile advertising and privacy. A literature review of mobile advertising studies associated with privacy follows and the chapter is summed up with a table that shows the theoretical framework and a research model.

3.1 Advertising History

The urge to communicate personal wants to other people in different ways, is by Elliot (1962, p.xi) explained to be a natural instinct. Furthermore, she exemplifies that historically, hanging tools above the door to communicate what kind of store that was inside is an example of this kind of communication. That would signal to people, needing certain services associated with the tools, to come indoors. That is an interesting example of early ways of communication with commercial motives, which advertising often is about.

Through a medium, messages are communicated and through a mass medium, messages are communicated to many people (Baran, 2007, p.6). Various mass media has been utilized for the purpose of executing advertising throughout the history. Billposting can be traced as far back as the ancient Egypt (Lichtental, Yadav and Dotnhu, 2005, p.239), and can probably be said to be the first method of mass communicating advertising messages. The billboards, house walls etc. on which the ads were posted can therefore be said to be the first mass media. Billposting together with all other forms of advertising out-of-doors is gathered under the name outdoor advertising (Lichtental et.al. 2005, p.239). Outdoor advertising is generally said to be the oldest form of advertising.

Newspapers were the first, of traditional mass media used for communication not solely through ads, which got financially supported by advertising (Baran, 2007, p.81). An early printed advertisement could be seen in an English periodical in February 1625 (Turner, 1965, p.15).

Ads in printed media and outdoor advertising were dominating, and basically the only forms of advertising, until the 20th century. Then advertising changed through the use of new media for advertising purposes, first through the radio and then through the TV.

The first radio commercial appeared in 1922. This was a result of the need for a new business model. Previously, the business model was to sell radios in order to finance radio stations. However, when the ones who wanted a radio already had one, nobody was buying them anymore and the revenues were obviously affected. Advertising therefore became necessary for the industry’s further survival and development. (Baran, 2007, p.184) This is an early example of the important role advertising can play in the development of new technology.

After the radio, the commercial usage of TV followed. The two first commercial stations started off in 1941, and the adoption of the medium among consumers exploded during the 1950s. The adoption created great advertising opportunities due to the reach. At the time, the TV-shows were actually produced on behalf of advertisers, and networks charged a fee to broadcast them. The brands were the sponsors of the TV-shows and therefore, they were closely associated with the shows. This changed during the late 1950s and the 60s, when networks started buying
content themselves and the current model of selling spots for advertising was introduced. (Baran, 2007, p.215-216)

The next major medium developed, revolutionized not only marketing and advertising, but the entire world. I am of course talking about the internet. Advertising online is part of a wider concept called digital marketing, which will be discussed in the next section.

**3.2.1 Digital Marketing**

Digital marketing is according to Chaffey (2009, p.16) including the following: Web, e-mail, databases, mobile/wireless and digital TV. The forms that are relevant in the context of this thesis will be discussed in the following three sections. First Web and e-mail advertising will be discussed under the heading “online advertising”. Mobile advertising is discussed under the heading with the same name, followed by a section about personalization of advertising, in which database advertising will be discussed.

**3.2.2 Online Advertising**

Internet, with its indescribably large amount of content, is a highly interactive medium that connects people with people, people with businesses and businesses with businesses. The medium allows interactions on a local, as well as on a global level. This makes it a very unique medium, and with the rise of it, marketing possibilities never before thought of emerged. I will in this section not cover all kind of advertising possibilities online, but focus on the forms that are most relevant for this thesis in the sense that they have clear connections to the forms of mobile advertising that are discussed. Those are: e-mail and display ads. In addition search ads will be discussed because of the changing effect it has had on advertising in general.

Sending promotional messages through e-mail is something that has been very common and still is. This could potentially be an efficient form of marketing. If getting consumers to opt-in, i.e. give away their e-mail addresses and agree to receive promotional e-mails, relevant information can be sent to consumers. (Chaffey, Ellis-Chadwick, Mayer and Johnston, 2009, p.450) Chaffey et.al. (2009, p.450) describes e-mail as a push medium, which means that communication is usually one way and that the recipients are passive, as in the case of traditional media. However, there can sometimes be features of the advertising enabling interaction, and thereby a two way communication occurs.

A problem with e-mail marketing/advertising is that it has been widely abused by marketers. The abuse has taken the form of sending spam messages to consumers. Spam messages are “unsolicited commercial e-mails” (Baran, 2007, p.314). Such messages are usually irrelevant for the receiver and therefore perceived as intrusive. Irrelevant messages have also been a problem within mobile advertising, sent through SMS, this will be discussed later. First, let us look at web advertising.

In 1991 the first internet website was launched (Chaffey et.al. 2009, p.3). This was a first step in creating preconditions for the advertising revolution. Approximately ten years after the launch of the first website, there were millions of websites (O’Connor and Galvin, 2001, p.14). All these websites were of course serving numerous different purposes. A lot of them though, were commercial websites, which purpose was to either stimulate online transaction, B to B or B to C,
or function as a marketing channel stimulating offline transactions. All these websites needed to be organized somehow, and internet users needed a convenient way to find the websites relevant to them through their PCs. The solution was search engines. One search engine points out from the rest, Google. Google is the brightest shining star on the search engine sky. Furthermore, Google has changed advertising dramatically with their search ads. They did it by “enabling marketers to pay for performance rather than space, time, and eyeballs” (Jarvis, 2009, p.145).

The key to the change was the pay per click (PPC) system. The revolutionary about this system was that for the first time, advertisers were not charged for showing ads, instead they were charged when their ads were clicked on, on a cost per click (CPC) basis. This means that the advertisers do not have to worry about spending money on exposing people to ads which they are not interested in, which is the case with all traditional media. This since the matching of key words in the search and the ads enables very effective targeting of ads. (Chaffey et.al. 2009, p.519) The web is in Chaffey et.al. (2009, p.450) described as pull media, meaning that consumers actively search for information themselves. This is obviously the case for search ads.

The CPC revenue model is also frequently used for display ads online, although often in combination with a cost per thousand impressions (CPM) model. Charging on a CPM basis means that the advertiser pays a fixed price per thousand showings of its ad (Chaffey et.al. 2009, p.114). Accordingly, when CPM and CPC is combined as a revenue model, advertisers are charged per thousand showings and in addition every time the ad is clicked. Banners, which are a type of display ads, used to be the most popular web ads but have been surpassed by search ads (Schumann and Thorson, 2007, p.210-211).

As mentioned earlier, Chaffey et.al (2009, p.450) describe the web as pull media, and as I interpret it, they are primary referring to web pages. However I consider web display ads to be push advertising. This is because consumers are initially not pulling display ads when they get exposed to them. What they pull is content of different kind, and display ads potentially related to the content and potentially targeted based on additional criteria, is then pushed. This is directly comparable with an end-user turning on the TV to watch a TV show. Also in such situation, content is being pulled i.e. the TV show and not the ads broadcasted in the commercial break. Similar comparisons can be made with other traditional media such as printed media and radio. Traditional media are all regarded as push media (Chaffey et.al 2009, p.450). Web display ads should therefore also be regarded as push advertising.

Web display ads in general have a much higher level of interactivity than traditional media though. This can help stimulating pull advertising. If a consumer interacts with an ad, for example in order to obtain more information, the additional information obtained is pulled by the consumer. It should therefore be defined as pull advertising. That does however not change that the initial display ad showed is being pushed.

Ads being pushed are however not necessarily unsolicited, which needs to be emphasized. According to my point of view, even though advertising is being pushed it can be solicited by consumers. Pulling content should be seen as a way of soliciting advertising. This is important from a legal point of view which will become clearer in section 3.3 in which legalities are being discussed.
Mobile display ads are as already mentioned the focus of this thesis. A section about mobile advertising follows.

### 3.2.3 Mobile Advertising

Mobile marketing is carried out by marketers through mobile devices. The mobile medium has developed from mobile phones, which still constitutes the foundation of the medium. However, there are other devices, such as tablet PCs, which also function as consumer interfaces of the mobile medium. Dickinger et al. (2005, p.165) defines mobile marketing as: “using a wireless medium to provide consumers with time- and location-sensitive, personalized information that promotes goods, services and ideas, thereby benefiting all stakeholders.” Another definition which is based on various other definitions of the concept is: “the use of mobile phones to provide consumers with time and location specific, personalized information, which promotes goods, services and ideas.” (Roach, 2009, p.126)

Mobile advertising is a very central form of mobile marketing (Dickinger et al. 2005, p.164). SMS advertising has during the past decade been the most common way to execute mobile advertising campaigns (Barnes and Scornavacca, 2008, p.407), and also the most successful way for advertisers to communicate with consumers in terms of mobile advertising (Dickinger et al. 2005, p.159).

However, mobile advertising includes several channels except for SMS advertising. Particularly interesting in this context is that mobile advertising is partly an extension of web advertising. The web is extended by the mobile web, and web advertising is also available as mobile web advertising, such as display ads. As discussed in previous chapters, the growth in mobile browsing among consumers is very rapid due to the increasing adoption of smartphones. This make mobile web display ads as well as in-app display ads increase in popularity, which are the two modern forms of mobile advertising in focus in this thesis. The discussion about web display ads being push or pull in section 3.2.2 is applicable to mobile web display ads and in-app display ads as well. In other words, initially (before any consumer interaction with the ad occurs), I consider both advertising forms to be push advertising since not being explicitly requested by consumers.

As implied in the definitions of mobile marketing presented, advantages with the mobile medium from a marketer’s perspective are interactivity and cost effectiveness, which is also true for web advertising. Furthermore, the more or less constant possibility to communicate with consumers at any time and place is an advantage with mobile advertising that distinguishes it from online advertising. This is because the devices are easier to carry and bring for consumers. In addition, the mobile medium like no other media enables personalization of ads since the devices are very personal. Personalization will be discussed in the next section.

### 3.2.4 Personalization of ads

The aim with advertising through the traditional media discussed in section 3.1 has traditionally been to expose as many people as possible. It is of course good to expose many people to an ad, that way more people for whom the ad is actually relevant, potentially is exposed. The problem however, is that there are always people exposed to the ad that find it completely irrelevant. The
money spent on exposing such people is wasted and ways of controlling who is actually exposed in order to expose consumers more likely to be interested in the ad is therefore very valuable. This can be achieved by proper market segmentation and targeting of ads. Market segmentation refers to targeting of products and services of a brand to suitable consumer segments rather than try to sell it to an entire market (Salomon, Bamossy, Askegaard and Hogg, 2010, p.5). The aim with the advertising accordingly is to target ads to people in the selected target market segment for the product or service being advertised. In practice, marketers categorize consumers into niches and they communicate with those niches on a very personal level (Turow, 2006, p.1), in contrast to the way of communicating through traditional mass media.

Targeting has been used in the traditional media as well, mainly based on content. For example, ads can be related to the type of content in a magazine or the kind of TV show broadcasted.

However, much narrower targeting methods are applied today. Typically, markets are segmented based on Demographics - gender age etc., Psychographics – lifestyle, personality, etc. and in addition, geography and past behavior of different kind can be used. (Solomon et.al, 2010, p.9) The key to reach out to consumers in the selected target market with advertising is information. Information is obtained and stored in data bases for this purpose. The more information possessed about consumers, the greater potential for personalized advertising.

Storing information about consumers, which later on is used for marketing purposes has been going on for some time. This is called database marketing. Database marketing was initially about direct-mail and telemarketing. The information stored was then limited to lists of phone numbers and addresses. That information alone was however not enough to accomplish effectively targeted campaigns. (O’Connor and Galvin, 2001, p.88)

With the internet, obtaining information such as consumers’ demographics and behavior became easy and cheap. Consumers often type in such information when an online transaction is executed, and it will then be stored in databases. Furthermore, companies can use cookies, etc. to discover patterns in consumers’ behavior. (Rust et.al. 2002, p.456) Cookies are programs that can trace online behavior of consumers and send the information to a web site owner (O’Connor and Galvin, 2001, p.94).

As computers became more and more common, the cost of storing information, e.g. the cost of hardware and software, also decreased a lot. (O’Connor and Galvin, 2001, p.88) The combination of lower costs of obtaining information about consumers and the lower costs of storing it consequently made the development of database marketing quick. This has lead to possibilities to target online advertising narrowly, and thereby personalizes it, which is indeed true for mobile advertising as well.

Gathering and storing information about consumers raises privacy concerns. This will be discussed in the next section.

3.3 Privacy

Mason (1986, p.5) discuss privacy of people as one of four major factors that are threatened due to the information flow in the society. In particular information technology development and
increased usage of information in decision making of policy makers is explained to threaten the privacy of people. This is something that raises concerns among consumers.

Due to issues associated with information processing, legislation regarding how personal data can be handled has been enforced in some parts of the world. The strictest legislation is the one within the European Union. A data protection act was adopted in 1998 which for example made it obligatory for companies to have consumer consent before processing any personal data unless it is necessary due to legal or contractual issues (O’Connor and Galvin, 2001, p.95). In this act, personal data is defined as:

“data which relate to a living individual who can be identified—

(a) from those data, or

(b) from those data and other information which is in the possession of, or is likely to come into the possession of, the data controller”(The National Archives, n.d.A)

Basically, personal data is personally identifiable according to the definition in the act. The act can be found in the national archives (n.d.B) and is based on eight principles. An extract from the act containing the eight principles is shown below, those are:

“1. Personal data shall be processed fairly and lawfully and, in particular, shall not be processed unless—

(a) at least one of the conditions in Schedule 2 is met, and

(b) in the case of sensitive personal data, at least one of the conditions in Schedule 3 is also met.

2. Personal data shall be obtained only for one or more specified and lawful purposes, and shall not be further processed in any manner incompatible with that purpose or those purposes.

3. Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed.

4. Personal data shall be accurate and, where necessary, kept up to date.

5. Personal data processed for any purpose or purposes shall not be kept for longer than is necessary for that purpose or those purposes.

6. Personal data shall be processed in accordance with the rights of data subjects under this Act.

7. Appropriate technical and organisational measures shall be taken against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data.

8. Personal data shall not be transferred to a country or territory outside the European Economic Area unless that country or territory ensures an adequate level of protection for the rights and freedoms of data subjects in relation to the processing of personal data.” (The National Archives, n.d.C)
The conditions in schedule 2 and 3 referred to in principle one are associated with the need for consumer consent before personal data is being processed and exceptions overruling the need for consent, which was referred to in O’Connor and Galvin (2001, p.95). (The National Archives, n.d.D); (National Archives, n.d.E)

From a legal point of view within the EU, obvious from reading this extract is the importance of data being handled fair, i.e. only stored if necessary, used for the purpose it was collected as well as being kept accurate. In addition, the need for consumer consent when personal data (with some exceptions) is processed is a very important factor.

In 2002, a complementing directive called EC directive on Privacy and Electronic communications was passed. This directive regulates digital marketing use of e-mail, SMS and cookies. (Chaffey, 2009, p.216-217) Article 13 in the directive regards unsolicited communication (European Parliament and the Council of the European Union, 2002, p.9). This article includes relevant content for this thesis, since it regulates the way SMS push advertising can be performed. As will be explained and motivated in the next section, the theoretical framework of this study will be based on SMS push advertising studies. SMS push advertising is always unsolicited since no content is being pulled when ads are received and ads are not being explicitly requested by consumers.

Basically, the article says that consumer consent is needed before executing unsolicited direct marketing campaigns (marketing to consumers with which the organisation initiating the campaign has some kind of relationship). If consumer contact details have been obtained in the context of selling a product or service, direct marketing is allowed of similar products or services of the organisation without consent, however, only if opt-out is easy and free of charge. In case of unsolicited campaigns that are not direct campaigns, consumer consent is always needed. Furthermore, the sender cannot be anonymous. (European Parliament and the Council of the European Union, 2002, p.9-10)

Other countries have looser or no restrictions when it comes to privacy and electronic communications. The US has only legislation regarding e-mail marketing for example. (Chaffey, 2009, p.216-217).

It should be emphasized that legislation is not the only reason for why marketers need to take privacy concerns of consumers into consideration. Breaking ethical rules can have a very negative effect on brand image of a company for instance. How the legal and ethical privacy considerations apply in a mobile advertising context will be discussed in the following five sections.

3.4.1 Mobile Advertising Privacy Norms

As mentioned in chapter 1, mobile advertising used to be more or less equal to SMS advertising. This also reflects the scientific material available. Research regarding SMS advertising will therefore be used as the basis for the theoretical framework of this study. There are two modes of SMS advertising possible to carry out by marketers, push and pull.

SMS push advertising is to send text messages to consumers without them explicitly being requested by consumers, i.e. ads are being pushed. (Dickinger et.al. 2005, p.164).
SMS pull advertising is the other way around. Instead of ads being pushed by marketers on consumers, consumers themselves are requesting ads. I.e. they are pulling advertising. (Bruner and Kumar, 2007, p.4) This way of viewing push and pull advertising is in accordance with the viewpoint discussed in section 3.2.2 regarding web push and pull display ads.

The focus of this thesis is on mobile display ads, which in accordance with the discussion in section 3.2.3 are push ads. The theoretical framework will therefore be built up primarily based on SMS advertising studies regarding push advertising. The framework will highlight the mobile advertising privacy norms that have been established by researchers, associated with consumer value creation and acceptance of mobile push advertising. The main privacy norms are associated with permission, relevance and control. The theoretical framework will be used to investigate if, and to what extent mobile ad networks design their mobile display ad solutions in accordance with privacy norms for mobile push advertising that has been established by researchers.

### 3.4.2 Clarification of privacy factors

The privacy factors Permission, Relevance and Control, are as mentioned in chapter 1 somewhat interrelated. Clear distinctions are therefore sometimes hard to make. However, I will in this section try to clarify the differences between the factors.

First of all some clarification regarding permission and control is needed at this point. In this study, permission refers to the importance for marketers to have general permission to send ads to consumers. Basically, in an SMS advertising context, this means that a marketer have permission to use a consumer’s phone number for the purpose of sending marketing messages to him/her. Control on the other hand, refers to issues associated with gathering and storing information about consumers other than phone numbers, and how that information is used.

The third factor in focus in this study, relevance, is very closely associated with control. To separate between them, control should be viewed as a way for consumers to protect themselves from personal data being abused by third parties. Relevance on the other hand should be viewed as a way for consumers to not having to get exposed to irrelevant messages. As will become clear from studies included in the theoretical framework, SMS/mobile advertising that is not permission based, abuse of personal data and sending irrelevant messages are all causers of privacy violation of consumers. A literature review follows.

### 3.4.3 Permission

There are different strategies for marketers to implement in terms of permission, when performing push advertising in a mobile context. Bruner and Kumar (2007, p.4), in their study about location based SMS advertising (LBA), presents two strategies, opt-in and opt-out. An opt-in strategy is explained as first getting permission from consumers to send ads to them, and then start sending ads. As opposed to this, by implementing an opt-out strategy, marketers send ads to consumers without permission, and stop sending them if a consumer says that he/she do not want them, i.e. opts-out.
The opt-out strategy is seen as irresponsible in a LBA context, i.e. when applied by sending ads based on location to consumers (Bruner and Kumar, 2007, p.5). The importance of permission to send ads targeted based on location is associated with consumer control and will be further discussed in section 3.2.4. However, Bruner and Kumars (2007, p.5) argumentation disfavoring an opt-out strategy in favor of an opt-in strategy is applicable when discussing the importance of general permission to send mobile ads as well. There is a lot of support in previous research for the importance of prior permission when sending ads to consumers in order to avoid privacy concerns, i.e. consumers being opted-in.

Tsang, Ho an Liang (2004, p.70) in their study about factors affecting consumers attitude towards mobile advertising, finds out that consumers have a positive attitude towards permission based mobile advertising but a negative attitude towards general mobile advertising. Findings in Bamba and Barnes (2007, p.825) show that almost 88% of respondents in their study believe it is important to give their consent to receive advertising through SMS. Barwise and Strong (2002, p.18) in their study about permission based mobile advertising, stress that having explicit permission from consumers to send ads to them is crucial in order for the advertising to be accepted. I.e. it is important that consumers are aware of it when they give their consent to receive ads. As discussed earlier, there are laws in some parts of the world regulating SMS advertising with respect to privacy. Within EU, legislation requires marketers to have permission from end-users to send messages that are not requested from time to time, i.e. the advertising has to be opt-in/permission based (Läppäniemi and Karjaluoto, 2005, p.207). However, in Bruner and Kumar (2007, p.5), “soft” opt-in is discussed. Basically, this occurs when marketers find ways around the laws to send ads to consumers without explicit permission. It is easy to get permission from consumers to send ads to them without them being aware of it, however, evident from the findings in Barwise and Strong (2002, p.18) this is not a method associated with successful SMS advertising.

Dickinger et.al (2005, p.168), conducted interviews with experts on SMS marketing with experience from carrying out campaigns. Of the 15 interviewees, 7 experts had a positive attitude towards legislations regarding permission to send SMS ads, and all 15 agreed on that permission is needed before sending ads. Especially interesting with this study is that it shows that actual users of SMS marketing are in agreement with academic researchers regarding the importance of permission before sending ads to consumers.

Barnes and Scornavacca (2008, p.414) concludes that: “In the present environment, no mobile advertising will succeed unless it overcomes the opt-in hurdle; before mobile customers even view advertising messages they must choose to receive them.”. That sentence basically summarizes the impact of legal restrictions linked to permission and what researchers have accomplished with their research in terms of creating SMS advertising privacy norms associated with permissions.

3.4.4 Relevance

Another very important factor, which has been established by researchers, when it comes to creating consumer value and acceptance of mobile advertising, is relevance of ads/messages.
Basically, the value creation and acceptance is necessary to obtain in order for advertising not to be intrusive and thereby not raise privacy concerns.

Relevance of ads is obtained by applying proper targeting or personalization of ads. In Dickinger et.al. (2005, p. 167-168) it is suggested that personalization of ads can be performed in terms of time, location and preferences of a consumer. The study shows that identifying the most appropriate time for consumers to receive messages can be crucial for the success of a campaign. Furthermore, messages targeted based on location and preferences such as leisure activities, income, occupation etc. also affects the impact of a campaign.

Relevance of messages is the factor identified to be the most influential factor for consumers to give permission to receive ads when considering several different combinations of factors which creates different scenarios. (Bamba and Barnes 2007, p.826) Barwise and Strong (2002, p.17-18), show results indicating that consumers expect highly relevant and personalized ads to accept permission based mobile ads. This due to the mobile phone, compared to other media, is personal. These two studies regard the importance of relevant ads in order for consumers to opt-in. Getting consumers to opt-in is a sure sign of acceptance of the advertising. The studies can therefore also be said to reflect the importance of relevant ads for consumers to accept the advertising.

In another study conducted by Läppäniemi and Karjaluoto (2005, p. 208-209), a conceptual model for factors influencing consumers’ willingness to accept mobile advertising is created based on previous studies. Personalization of ads, based on personal profiles, time and location sensitive information, is brought forward as one of the main factors that may influence consumers’ willingness to accept mobile advertising. This conceptualization is supported by Trappey and Woodside (2005, p.383-384) in which evaluation of SMS campaigns are the basis of the results. Findings show correlations between interest and acceptance of SMS ads as well as for relevance and acceptance. Discovered in a quantitative study by Carroll, Barnes, Scornavacca and Fletcher (2007, p.91) was that the content of the ads is the second most influential factor on acceptance of SMS ads. These findings further strengthen the importance of relevant messages in mobile advertising.

In general, all studies presented in this section highlight the importance for marketers to know who they are communicating with. Targeting of ads need to be narrow to be successful when advertising through the mobile medium. Marketers need to use all information they possibly can in order to personalize ads and thereby obtain the relevance that makes consumers accept the advertising.

However, targeting and personalization of ads can sometimes be problematic in the sense that it might be perceived as intrusive by consumers. This will be discussed in the next section.

3.4.5 Control

In a study about internet privacy by Rust et.al. (2002, p.455-456) it is explained that convenience gained by consumers through online transactions also have a price, less privacy. This is due to that online transactions require consumers to leave information about themselves such as name,
address and credit card number. This enables collection of data regarding consumers purchase behavior, demographics etc., which is stored in data bases. Findings show that it is getting harder and harder to be anonymous for consumers, and easier and less expensive for companies to obtain consumer data (Rust et.al 2002, p.461).

This is true also in a mobile context, in which this kind of transactional information is generally possessed by mobile operators. The information can be used for targeting and ad-personalization purposes. Not all consumers are comfortable with information about their browsing and purchase behavior etc. is being stored, and privacy concerns might therefore arise. In Dickinger et.al. (2005, p.168) the issue of privacy concerns, as a result of advertising based on gathered data about consumers, is surfaced. Personalized ads, which are expected by consumers, are on the one hand depending on this data, but on the other hand, consumer control and legal aspects are necessary to take into consideration.

Information regarding location can be perceived as very sensitive. Even though, such information in combination with the characteristics of the mobile medium constitutes a great foundation for targeting and personalization of ads, it is highly associated with privacy concerns. In Unni and Harmon (2007, p.7, 15) LBA is studied. Privacy concerns associated with consumers location being tracked were measured, and were found to be high. It is concluded that it is important for marketers to respect consumers’ privacy. The legal restrictions associated with sending messages to consumer in some parts of the world, are obviously also applicable if the ads are personalized. Even though the laws are possible to get around, it is, as mentioned in section 3.4.2, according to Bruner and Kumar (2007, p.5) not considered to be responsible to carry out location based advertising without permission. In addition, having to give permission to the third party for them to be able to use some certain information for targeting purposes, such as location sensitive information, can be a way for consumers to control the information stored about them. It is important for marketers to let consumers control if information about their location and other potentially sensitive information are being used for targeting purposes in order to prevent the rise of privacy concerns.

The control factor is important for consumers to give general permission to receive advertising as well. When studying factors one by one (in contrast to the approach in the same study of studying combinations of factors described in section 3.2.3), findings in Bamba and Barnes (2007, p.826) show that the most important factor for consumers to choose to give their consent to receive SMS ads is control over opt-in conditions, and the second most important is to be able to control if a third party gain access to personal data. In other words, it is important for consumers to be able to opt-out at any time and to be in charge of how information stored about them is being used. The latter could for example mean that there is a separate opt-in for receiving ads targeted based on information that can be regarded as sensitive. Bauer, Barnes, Neumann and Reichardt (2005, p.185,188) determines factors that drives consumer acceptance of mobile marketing. Perceived risk, which is explained to be associated with data security e.g. tracking of usage patterns and unauthorized data access, is proven to have a more negative impact on attitudes towards mobile marketing the higher the risk is perceived to be. This highlights the importance of putting consumers in control in order to avoid the occurrence of privacy concerns.
3.5 Summary of implications

In table 1, a summary of the literature reviewed, as well as the most important implication from that literature for each of the factors permission, relevance and control can be seen. The implication for each factor respectively, should be viewed as norms for SMS push advertising that has already been established by researchers. It will in this study be investigated if these norms are applied in mobile display ad contexts by mobile ad networks. This will be further clarified in the next section, in which the research model will be presented.

Table 1 – Theoretical framework and Implications

<table>
<thead>
<tr>
<th>Privacy Factor</th>
<th>Literature</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permission</td>
<td>(Bruner and Kumar, 2007); (Bamba and Barnes, 2007); (Tsang, Ho an Liang, 2004); (Barwise and Strong, 2002); (Läppäniemi and Karjaluoto, 2005); (Dickinger et.al 2005); (Barnes and Scornavacca, 2008)</td>
<td>The importance of SMS/Mobile push advertising being opt-in/permission based.</td>
</tr>
<tr>
<td>Relevance</td>
<td>(Dickinger et.al. 2005); (Bamba and Barnes, 2007); (Barwise and Strong, 2002); (Läppäniemi and Karjaluoto, 2005); (Trappey and Woodside, 2005); (Carroll et.al. 2007)</td>
<td>The importance of SMS/Mobile push advertising being relevant</td>
</tr>
<tr>
<td>Control</td>
<td>(Rust et.al . 2002); (Dickinger et.al. 2005); (Bruner and Kumar, 2007); (Bamba and Barnes, 2007); (Bauer et.al. 2005); (Unni and Harmon, 2007)</td>
<td>The importance of consumer control over personal information</td>
</tr>
</tbody>
</table>

3.6 Research Model

In figure 6, the research model for this study can be seen. What will be investigated is if and to what extent, and why/why not privacy norms regarding permission, relevance and control of SMS/mobile advertising, is being applied by mobile ad networks in a mobile display ad context.

Figure 6 – Research model
Chapter 4 Methodology

This chapter consists of two parts: Scientific methodology and Practical methodology. In the first part, the choice of subject is motivated and preconceptions presented. Furthermore, the research approach, research strategy and research philosophies are presented. The part ends with a section regarding secondary sources. In the second part, the research design and all relevant information associated with data collection and analysis is presented. Finally the quality of the research is evaluated.

Part 1 Scientific Methodology

4.1 Choice of subject

The choice of subject for this thesis is first of all associated with that I am a marketing student. Second, mobile advertising is an industry that has been forecasted a great future and is expected to “take off” for real the coming few years. The subject is in view of that indeed current. With this personalized form of marketing privacy issues are closely related. Privacy of consumers is important to keep in mind when executing mobile advertising in order to keep it non-intrusive. Investigating what companies are doing in order to prevent such concerns therefore feels very interesting and important.

4.2 Preconceptions

My interest in digital advertising started a couple of years ago. I was at the time working on developing a business plan for the commercialization of a digital signage platform based in taxi cars. I started gaining an interest in mobile advertising since this platform had an interactive feature allowing consumers to interact through their mobile phones. I later on wrote my bachelor thesis about this particular feature and gained deeper knowledge about mobile advertising. During the work with the business plan, I also established some connections within Ericsson, which later on lead to an internship. During the two month internship, I worked with mobile advertising at Ericsson’s local Taiwan office. What I previously know about privacy, is what I have learned through learning about mobile advertising.

Since I have some experience of mobile advertising, I also have values associated with it. Values or personal believes associated with a research topic is likely to have an impact on the research (Bryman and Bell, 2007, p.29-30). In this case the pre-knowledge I have about privacy issues associated with mobile advertising is likely to influence parts of the research I conduct. It is however my aim to make that impact as small as possible when collecting and presenting empirical data by applying an open minded attitude. However, when analyzing and interpreting data I view my experience as an asset and I will use it accordingly.

4.3 Research Strategy

I have applied a qualitative research strategy for this thesis. I assessed a qualitative strategy to be the most appropriate strategy to apply due to the problem formulation and purpose of the study. This since qualitative data collection and analysis enables an in depth understanding of the view
of privacy issues of mobile ad networks, associated with mobile display advertising, which is a very important aim of this study to obtain and in line with the problem formulation and purpose of the study. This in depth understanding is enabled since a main characteristic of qualitative research is that data collected by researchers are in the form of words instead of numbers (Bogdan and Biklen, 1992, p.30) (Bryman and Bell, 2007, p.402).

Furthermore the research process applied to this study is similar to the one Bryman and Bell (2007, p.406) conceptualize. The conceptualisation of a qualitative research process consists of six steps. Those are: 1. General research question, 2. Selecting relevant site(s) and subjects, 3. Collection of relevant data, 4. Interpretation of data, 5. Conceptual and Theoretical work and 6. Writing up findings/Conclusions. Although I might not have followed these steps in order, they have all been included in my research.

In the next section the relationship between theory and research will be discussed.

4.4 Research Approach

May (2001, p.29) defines theory as “the ability to explain and understand the findings of research within a conceptual framework that makes “sense” of the data”. The conceptual framework would in this case be this entire study according to my interpretation. The research approach is related to the connection between research and theory. I have applied an inductive research approach for this study. Some people might have another point of view than mine regarding this matter since this is not a crystal clear issue. I will however explain my point of view in this section.

When an inductive approach is applied, theory is formed based on empirical observations. However, there is also an alternative approach, which is the deductive approach. When a deductive research approach is applied, theory guides the way research is performed. In general, hypotheses are deduced from existing theory, which are then tested. The outcome is that hypotheses are rejected or accepted, and this “new” knowledge contributes to the stock of knowledge of the particular field researched. (Bryman and Bell, 2007, p.11-14)

Qualitative research is associated with an inductive approach (Bogdan and Biklen 1992. P.31). Theory being formed based on empirical observations, does not mean that theory is not used at all as guidance when conducting qualitative research with an inductive research approach. As Bogdan and Biklen (1992, p.33) put it “Good researchers are aware of their theoretical base and use it to help collect and analyze data”. This, they say, is true for all research.

I have used a theoretical framework from which implications regarding each privacy factor in focus have been presented. The theoretical framework that I have utilized could possibly be seen as a sign of a deductive approach. Furthermore, the implications could potentially be compared to hypotheses. However, the purpose of the theoretical framework and the implications is to assist in determining what data that should be empirically collected and analyzed in order to obtain theory. Hypotheses have not been tested. The aim is in other words to form theory rather than to test theory. Having an aim of forming theory and using the theoretical framework as guidance when collecting empirical data are approaches strongly associated with an inductive approach, and motivates my point of view.
4.5 Research Philosophies

The epistemological position of a researcher describes the way he/she views knowledge (Bryman and Bell, 2007, p.16). My position is an interpretivistic position. Understanding reasons for why mobile ad networks are applying their strategies are important in this study considering the problem formulation and the purpose, which makes an interpretivistic position logical.

A researcher taking an interpretivistic position is focusing exactly on such creation of understanding of human behaviour, rather than just explaining it. The natural science model is not applied, and the understanding is considered as necessary in order to accept the behaviour as knowledge. (Bryman and Bell, 2007, p.17-18)

My ontological position is a constructionist position. An ontological position describes the view of reality of social entities of a researcher. (Bryman and Bell, 2007, p.22) A constructionist, believe that reality is socially constructed and that it in no sense is independent (Alasuutari, Bickman and Brannen, 2008, p.84). Furthermore, the reality is constantly changing (Bryman and Bell, 2007, p. 23). This suggests that mobile ad networks themselves are affecting the reality they are operating within. It is my strong belief that so is the case and this position is therefore natural to choose.

The epistemological and ontological positions I have taken, are well in line with the qualitative research strategy and the inductive research approach I act in accordance with. This further strengthens the logic in choices of positions.

4.6 Secondary Sources

Secondary sources that have been used are for example books, journal articles, magazine articles, web pages etc. Most of the information has been found through the data base business source premier or by searching through Google. Books have furthermore been found by searching in Umeå University’s library databases. As for the sources used for the theoretical framework, key search words used was Advertising, Mobile marketing, Mobile advertising, SMS advertising, LBS advertising and privacy.

Four traditional criteria used for evaluation of sources are Time, Authenticity, Dependency and Bias. In this context, the aspect of the time issue that is relevant is if the information is up to date. Authenticity regards if the information presented in a source is true. Dependency regards if the information obtained from a source has been obtained from another source. In such case, the information is less credible. Bias is about issues associated with sources presenting information in a way that could be misleading the reader. For example by over or understating etc. (Leth and Thuren, 2000, p.22-25)

The time issue is really important to take into consideration when selecting secondary sources for a study of this nature. Rapid change is ongoing within the mobile ad industry, and sources can therefore be out of date even though they are relatively new. As for the theoretical framework of this thesis, I have used studies on mobile/SMS advertising, which have been conducted the past decade. I believe the studies all provide relevant information that is still up to date considering the function of them in this study, which is to show what privacy norms that has been developed and determined during the history of mobile/SMS advertising. As for secondary sources
regarding mobile display advertising I have tried to use articles published 2010 to as great extent as possible. I have done this in order to avoid issues associated with time. The authenticity issue and bias issue have been dealt with partly by which data bases that has been used, and partly by using information published in journals and magazines that has a good reputation. The dependency issue has been dealt with by always consulting the primary source in cases when one source is referring to another.

When using internet sources, credibility is an additional criterion that should be used to evaluate the source. Basically an assessment has to be made if for example the author of an article know what he is talking about and present the information objectively. This could be done based on how much information that the author reveals of him/herself, name, ways of contacting the author, position experience etc. The more information revealed the better it is for the credibility of the source. (Leth and Thuren, 2000, p.31) I have used sources that I have assessed as credible. The assessments have been made mainly based on where articles used have been published and on whom the author is representing. As for the theoretical framework, nothing but scientific journals and books have been used. In chapter 1 and 2, in which background material regarding mobile display advertising is presented, a lot of non scientific sources are used, such as magazine articles and web page information. These sources were however assessed to be appropriate to use for the purpose of giving the reader an understanding of what mobile display advertising is about. Such sources would on the other hand not have been appropriate to include in the theoretical framework.

**Part 2 Practical Methodology**

**4.7 Research Design**

I have applied a multi/multiple case study research design for this study. A case study is a way for researchers to empirically investigate a specific case (Alasuutari et.al. 2008, p. 215), such as an organization. In a multiple case study, more than one case is studied (Bryman and Bell, 2007, p.64). In this study, two cases are being studied. The aim with this study is not to obtain generalizable results, which normally is not the case when applying a multiple case study (Bryman and Bell, 2007, p.64-65). The aim is to compare the two cases in order to highlight similarities and differences. Allowing the researcher to make comparisons between the cases studied, is the main characteristic of this kind of research design (Bogdan and Biklen, 1992, p.69). This is also the reason for why I find it suitable to apply a multi case study design. The point of the comparison is to create a foundation for what to investigate in future research, associated with mobile display advertising privacy issues, with approaches enabling generalization of results.

**4.8.1 Population**

The population of this study is mobile ad networks serving mobile display ads. The exact size of the population, i.e. how many mobile ad networks with mobile display ad solutions there are worldwide, is very hard to determine.

However, there are around 16 leading mobile ad networks around the world (mobiThinking A, 2010).
4.8.2 Sampling

The sampling technique I used for this study was convenience sampling. Convenience sampling is a technique which allows researchers to select participants that are convenient to include (Shiu et.al. 2010, p.480). This is a non-probability sampling technique. In contrast to probability sampling, non-probability sampling is “a sampling process where the probability of selecting each sampling-unit is not known” (Shiu et.al. 2010, p.470). A non probability sampling technique was reasonable to use in this context, since characteristics of the sample units are more important than the statistical possibility of ad networks included in the population being selected.

However, convenience sampling is not the ideal form of non-probability sampling technique to apply. Judgment sampling could for example have been more appropriate. Judgment sampling means that the researcher select the sample based on his/hers own judgment (Shiu, Hair, Bush and Ortinau, 2010, p.481). However, due to difficulties in getting in touch with many ad networks, convenience sampling was in the end the only possible technique to apply. This is something that is very common when performing research of this kind (Bryman and Bell, 2007, p.458). In total, eleven ad networks were contacted which were all selected based on their characteristic of being a world leading ad network or having the potential of becoming one. Out of those eleven, two networks were in the end included in the study.

The sample selected consisted of Inmobi and Ericsson. Inmobi is one of the world leading mobile display advertising networks. Ericsson is in a start up phase when it comes to mobile display advertising. However, it is a world leading Telecom Company with resources creating potential of becoming a big global player on the mobile advertising market. These two companies will be further introduced in the next chapter.

In order to obtain generalizable results, a bigger sample would have been necessary. However, since this is not the aim with this study, which is in accordance with the research design, and in addition the two selected ad networks characteristics of being world leading or potentially being able to become that, this sample is satisfactory.

4.9.1 Empirical Data Collection

The empirical data of this study has been gathered through semi-structured interviews with the mobile ad networks included in the sample. In other words, the analysis is based on primary data. Primary data is first hand information obtained by the researcher (Shiu et.al. 2010, p.63).

When semi-structured interviews are performed, the interviewer has a set of specific questions. However, the interviewee is free to elaborate on answers and the interviewer can ask follow up questions and have more of a dialogue with the person being interviewed. (May, 2001, p.123) This was assessed to be the most appropriate interview technique to apply. This since the aim was to find out both what policies the companies interviewed is applying in terms of permission, relevance and control in a mobile display ad context, as well as the motives behind applying these particular policies. Giving the interviewee a chance to speak somewhat freely therefore was important. At the same time it, was important to control the interview and make sure that all relevant questions were asked.
4.9.2 Conduction of the interviews

The interviews were conducted over the phone. This form of interview has some disadvantages compared to face to face interviews. Bryman and Bell, (2007, p.216-217) provides a list of such disadvantages. In this context there is in particular one of those disadvantages that is applicable, which is: no possibility to observe the body language of the interviewee, which if it is possible to do, might trigger the interviewer to ask further questions regarding a particular issue. Even though face to face interviews would have been preferable, it was not a possibility due to the geographic locations of the interviewees being different from my own.

The interview with the Inmobi lasted for about 50 minutes and the one with the Ericsson representative for about one hour. The interviews were recorded in order to enable proper transcription and interpretation of what was said during them. After conducting them they were transcribed and e-mailed to the respective interviewee for confirmation of the contents accuracy. A second conversation/interview was held over the phone with the Ericsson representative after he had read the transcription of the interview. This was in order to clarify some issues. I furthermore took the opportunity to ask some follow up questions. The conversation lasted for about 55 minutes. The approved transcriptions then served as the foundation for the analysis.

4.9.3 Access

As already mentioned, there were some problems associated with getting in touch with mobile ad networks. However, the two ad networks that did participate in this study did so in a very satisfactory way. In general I was very pleased with the interviews conducted. Both respondents patiently answered my questions and provided further reflections, both regarding their companies’ point of view and their own. Furthermore, the respondents were representing their company since they were suited to do so, i.e. they possessed knowledge regarding the research subject of this thesis. The respondents could therefore comprehensively contribute with answers to questions asked and additional reflections and comments, which I perceive reflects the included ad networks strategies and points of view in a very good way.

4.9.4 Interview guide

The interview guide, which can be seen in appendix 1, was constructed so that it consists of a pre-interview part and three interview parts. The pre-interview part is informative. The interviewee was informed about that the interview was recorded and confidentiality associated with that, as well as information regarding transcription of the interview and the general purpose of the study, which according to Bogdan and Biklen (1992, p.97) is good to start with.

Part 1 includes general questions regarding the interviewee, and general questions regarding mobile advertising within the company, such as countries of operations of the company and market share. These questions were included in order to provide background information which could assist when assessments regarding the ad networks and their representatives’ suitability to participate in the study are being made. Part 2 includes questions regarding perceptions of the mobile medium within the company. These questions were primary included to give a hint about what the ad networks believe will happen with mobile advertising in the future and how they view the current potential of the medium, basically further background information adding to the
totality of the ad networks points of view. Finally part 3 includes questions regarding privacy policies, i.e. issues regarding Permission, Relevance and Control. These were the most important questions, and the answers to them constitute the foundation of the empirical data used for answering the research question.

4.10 Data analysis

Barney and Glaser (1967) published a book called the grounded theory. This book provides a framework for analyzing qualitative data and is widely used. (Bryman and Bell, 2007, p.584) The framework is very comprehensive, but one main characteristic is the use of coding of categories of information, in order to structure the empirical data collected (Alasuutari et.al 2008, p.472). Basically, coding means that information is categorized and named (Bryman and Bell, 2007, p. 585).

I have also used coding in order to efficiently structure the analysis of empirical data. However, researchers applying the grounded theory create different codes after the empirical data has been collected (Bryman and Bell, 2007, p.585), which is something I have done only to a limited extent. My main categories of information were determined and coded before the empirical data was collected, by using previous theories. The coding thereby affected both the strategy for empirical data collection and analysis. Those categories are the privacy factors Permission, Relevance and Control. The empirical data collected regarding mobile display advertising privacy issues, has been analyzed first on a general level, and then based on the three factors. In addition to the privacy categories, the analysis includes a couple of more general categories of information. Those are: The future of mobile display advertising, and The mobile medium. These two categories were coded after the empirical data had been collected, which is in accordance with the grounded theory approach. The aim with the analysis was to keep a clear structure that was consistent with the rest of the thesis.

4.11 Quality of the research

In Bryman and Bell (2007, p.410) presents four criteria on which quality of qualitative research can be evaluated, which originally was presented in LeCompre and Goetz (1982). The first one is External reliability, the level of replicability of a study. The second is Internal reliability, referring to if there is more than one researcher included in performing a study that are both in agreement with each other about what has been observed. The third is Internal validity which refers to whether or not theories developed being in accordance with the observations they are based on. Finally, the forth criteria, External validity refers to the generalizability of findings.

As for external reliability, I believe that the replicability of this study is quite low. This is since the data collection is based on interviews that were not structured. Even though an interview guide was used, the interviews were held in form of a dialogue leading to follow up questions and discussions that was not within the framework for the interview guide. The role of the individual researcher is, the way I see it, impossible to replicate. It is hard to say anything about what the exact impact of a researcher is during data collection of the kind applied in this study. I will therefore settle with saying that it has an impact and that it affects the degree of replicability of the study in a negative way. This might be seen as a weakness. However, in that case it is a weakness shared with all studies which data collection is partly or entirely based on semi-
structured or unstructured interview. As discussed in section 4.5, the epistemological view of a qualitative researcher in general reflects one of understanding human behavior and not just explaining it. I believe that obtaining such an understanding is depending on observations not being structured. Structuring observations have a positive impact on the replicability of a study, but the price for obtaining higher replicability is to not being able to obtain the, by the qualitative researcher, desired understanding of human actions. Opposite, interviews that are not structured have a negative impact on replicability, but it is a necessary price to pay to gain the most wanted understanding.

Since I was the only researcher working on this research, the study has no internal reliability. Even though there would have been a second researcher, it does not necessarily mean that the internal reliability obtained would have had any real value. One researcher could be strongly affected by the other researcher’s interpretation of observations, and in practice that would mean that the internal reliability has no value. Problematic is that it is hard to know when this is the case. Unarguably though, is that two people arguing for the same thing is twice as many as one person arguing for his/her case. Internal reliability probably has a value in most cases, which could be seen as value adding for all studies obtaining it. I believe it is important to keep both views of the value of internal reliability in mind when using it as a criterion for evaluating quality of research.

As for the internal validity of this study I believe it is high. I have in general strived to keep consistency throughout the entire thesis. Furthermore, the consistency between the conceptualization and the empirical data collected through the interviews with the ad networks, I assess to be high.

The external validity of the findings is low. As discussed in section 4.7, the aim with this study and usually when a case study research design is applied, is not to obtain generalizable results. A low external validity is therefore often expected when performing this kind of research. Similar to how replicability had to be sacrificed, generalizability had to be sacrificed in order to obtain understanding. The difference however, is that generalizability is in no sense impossible to achieve with research such as the one performed in this thesis. However, in order to be able to generalize findings a sample of a size that, for this study, would have been impossible to obtain and handle, in terms of the amount of data needed to be collected, would have been required.

Obvious from the discussion associated with the criteria of evaluation in this section, is that evaluating qualitative research is not a simple task. Of the criteria I used, only internal validity is reasonably straightforward as a tool for evaluation. The remaining three criteria provide quite diffuse guidance for evaluation. In the end it basically comes down to each and every reader of a qualitative scientific report, having to make an assessment based on the words of the author. In other words, evaluating qualitative research requires the evaluator to apply the same qualitative approach as the researcher did when interpreting data.
Chapter 5 Results and Analysis

This chapter starts with a short introduction of the companies included in the sample and their representatives during the interviews. The result of the interviews is then presented and analyzed. The findings are then conceptualized and summarized in a table. The chapter ends with a section in which I give my own personal point of view by reflecting on the findings and giving suggestions for improvement.

5.1 Ericsson

The name of the Ericsson representative interviewed is Peter Yeung. He is Product Innovation Manager at Ericsson, and he possesses knowledge about privacy policies of Ericsson associated with mobile advertising. He is working at Ericsson’s headquarter in Stockholm, and he has been an Ericsson employee since 1991. From now on, information obtained during the interviews with Yeung will be referred to as Ericsson or Yeung. A brief presentation of Ericsson and mobile advertising solutions of Ericsson follows.

Ericsson is a world leading company within the telecom industry. They provide telecommunications equipment, telecom services and multimedia solutions. More than 40% of the mobile traffic passing through their networks, customers in 175 countries and a history of 134 years within the telecommunications industry certainly puts Ericsson in a position not many telecom companies can match. (Ericsson, n.d.A)

As for mobile advertising, Ericsson has two main solutions that include display advertising. The first one is called Ad orchestrator, which is an ad serving platform provided to operators. Operators can use it as a base when building their own mobile advertising ecosystems. (Ericsson, n.d.B)

The second solution is called Ad Market. Ad Market work as a link between operators, publishers and developers on the one hand, and media agencies/advertisers on the other. On Ad Market advertising space can be traded, and subscriber data is made available for advertisers to use for targeting purposes. Ericsson is responsible for building the advertising ecosystem as well as for managing operations. (Ericsson, n.d.C)

While Ericsson basically provides an ad server through Ad Orchestrator, they act as an ad network through Ad Market since being responsible for the ecosystem. I therefore focus on Ad Market in this thesis.

Ericsson work on a global level with their mobile advertising solutions. They are however still in a start-up phase when it comes to AD Market, and they are mainly focusing on markets in Asia and Europe. Mobile web advertising is the biggest form of advertising for Ericsson, followed by SMS. Only a very small portion of Ericsson’s mobile advertising is in-app advertising. Accordingly, as for mobile display advertising the main focus for Ericsson is on mobile web advertising. Furthermore, Ericsson is a premium network. (Ericsson)
5.2 Inmobi

Inmobi was represented by Gregory Kennedy during the interview. Kennedy is a Director of Global Marketing at Inmobi. He has been with the company ever since they launched in the US six month ago. Kennedy in addition has prior experience of digital media from previous employments, both on the advertising and the publisher side. He works at Inmobi`s US office in San Francisco and he is familiar with the company`s privacy policies. From now on, information obtained through the interview will be referred to as Inmobi or Kennedy. A short presentation of Inmobi and their mobile advertising solution follows.

Inmobi started up their business in 2007 in the APAC region (Inmobi, 2010A). Their head quarter is in Bangalore, India. In addition to India, Inmobi also have offices in Singapore, in the UK and in the US. Inmobi is a world leading ad network, and the company is a blind network. (mobiThinking, 2010B)

Inmobi´s ad network is linked to thousands of publishers and advertisers worldwide through partnerships (Inmobi, 2010B). Through Inmobi, advertisers can design and manage targeted advertising campaigns (Inmobi, 2010C) and publishers can monetize ad inventory on mobile web sites and in applications (Inmobi, 2010D).

Inmobi are live in 150 countries. Region wise they operate in APAC, Africa (South Africa, Nigeria and a few other countries), Europe and the US. Inmobi is the largest network in APAC, the largest display ad network in Africa, and Europe is their biggest market if measured in Dollar value. The network was launched in the US six month ago and the US market is expected to be the biggest market for the company next year. Regarding market share, globally Inmobi is second to Admob and Google. It is hard to obtain data regarding market shares due to the existence of small regional players. However, Inmobi is usually number one or two in each market they are live in. Roughly estimated, globally, there is a 50/50 split of mobile web ads and in-app ads of the ads served by Inmobi. However, the numbers varies among regions. (Inmobi)

In the next section, the two ad networks view of the mobile medium will be highlighted.

5.3.1 The Mobile Medium

In the following two sections, Ericsson´s and Inmobi´s view of advantages and disadvantages with the mobile medium, associated with advertising, seen from an advertiser and a consumer perspective will be presented.

5.3.2 Advantages

The two ad networks observe great potential of the mobile medium and advertising through it, both for advertisers and for consumers, compared to other media.

Great potential is created by the mobile medium since everybody is carrying their devices with them and it has a more personal nature compared to a computer (Inmobi). This is a general advantage for advertisers and media agencies. Kennedy said: “The PC internet showed the potential, but I believe that the mobile internet is going to fulfill on what consumers actually want.” The relative complexity of computers is not transferred to mobile phones, but the good
things about internet are. That is why consumers will be happier using mobile phones. This is something advertisers can benefit from. (Inmobi) Basically, the enhanced user experience of the mobile internet compared to pc internet is an advantage for consumer, which creates an advantage for advertisers in form of good advertising potential.

As for advertiser advantages, Ericsson emphasizes the advantages with digital media in general, which the mobile medium is part of. The concept of “three screen vision” is explained, which for advertisers mean that they can have their ad shown on three different screens. Those screens are: the TV through connected TV, the PC through the Web and the mobile phone trough the mobile web or apps. This is an advantage that digital advertising offers advertisers that traditional media does not. (Ericsson)

Interesting is that Inmobi primary highlights advantages of the mobile medium compared to the pc web. Ericsson on the other hand emphasizes the advertiser advantages of a combination of digital media including both the mobile medium and the pc web. This I view as a reflection of strategic differences between the two companies. Inmobi is focusing solely on the mobile medium whereas Ericsson has a wider strategy, which includes additional digital media.

As for advantages for consumers associated with mobile display advertising Ericsson says that consumers can benefit from targeting possibilities of mobile advertising. The possibility of targeting ads to individuals without having a relationship with the consumer in question, as in the case of direct marketing, enables consumers to receive relevant targeted advertising from advertisers through the mobile medium. This distinguishes the medium from other media. (Ericsson)

Furthermore, an important advantage for consumers associated with mobile display advertising is that apps and content is provided for free thanks to the advertising. The importance of this aspect is emphasized. Advertising drives the development of the mobile internet content. Without advertising, content would all be monetized by end-users having to pay for it, which would slow down development due to reluctance among consumers to always pay for content. (Ericsson)

This is a view that Inmobi shares. In the US, it is a well understood business model that if you get content for free, there will be monetization through advertising. The value proposition of ads in apps is for example very straight forward and easy to understand for users. This is however a US centric perspective and such business models might not be as well understood, and even up for debate, in other markets, e.g. Europe. This is due to governmental sponsorship of content being more common. (Inmobi)

In general it could be said that the two ad networks have a very similar perception of consumer advantages associated with mobile display ads. Mainly this is about getting content and apps for free. Advertising was a very important part of the development of the radio medium as discussed in (Baran, 2007, p.184) and mentioned in this thesis in section 3.1. Apparent from what the interviewees say is that advertising play an important role also in development of modern media.
5.3.3 Disadvantages/Limitations

An issue associated with the mobile medium that could limit advertisers’ possibilities of reaching out to their target market, is that there are some mobile platforms that are closed, i.e. iPhone. Inmobi works across 9000 devices across mobile platforms, which gives advertisers great possibilities of reaching out with advertising. However, Apple controls all the content on their platform (iPhone), which means that potentially, Apple could stop Inmobi from serving ads on their platform, which is threatening the reach that mobile ad networks, such as Inmobi, can provide for advertisers. (Inmobi)

Ericsson show similar concerns regarding Apples strategy: Apple have a lot of restrictions on what app developers can and cannot do in terms of advertising on their platform. Sometimes this results in ads being impossible to serve by other ad networks than Apples own. This is exactly what Apple wants to accomplish since other ad networks are then shut out from their platform. (Ericsson)

Apples strategy is quite illogical considering the characteristics of their own ad network and the motives behind them wanting advertising on their platform. Apple wants advertising on their platform since it helps their developers to monetize their apps, which generates free or cheap apps for iPhone users. It should also be remembered that advertising through iAd is very expensive, and only big brands with large advertising budgets are targeted. In other words, most advertisers cannot afford advertising through iAd and therefore need to use other ad networks if they are interested in advertising on iPhone. iPhone developers can thereby benefit from ad networks providing less expensive advertising solutions to advertisers. The approach to make it hard for other ad networks to help their developers monetize their apps, in a way that Apple cannot, therefore makes little sense. Such an approach can have consequences for the development of the mobile medium and its content, regardless of platform. Diminished reach for advertisers will make advertising through the medium less attractive. Apples strategy is therefore unhealthy keeping in mind that advertising drives the development of the mobile internet content, as pointed out by Ericsson.

5.4 The Future of Mobile Display Advertising

As for what will happen with mobile display advertising in the future, Inmobi and Ericsson have a somewhat different view.

Regarding what will happen with apps the coming five years, there is actually a potential that apps will all be web apps depending on the popularity of HTML5, with which native apps (apps that run on a client, i.e. a mobile phone) does not have to be created. This would result in mobile display advertising going all mobile web. The experience for end-users of advertising in mobile web applications will however still be the same as of in-app advertising today, the difference will mainly be for developers. (Inmobi)

Yeung’s view is that there is an ongoing battle between client based and web based applications. There are advantages with both. Some services have to be in form of a client based application, e.g. a Voip client like Skype. On the other hand, it is easier and less barriers for an end-user with limited knowledge about technology to use the web to obtain content e.g. from a newspaper than to download, install and run an application to obtain the same content. However, for an end-user
viewing certain content frequently, an application might be very handy. Adding to the discussion, from a content provider’s point of view there might be an advantage to build a mobile web page to distribute content, since it is probably cheaper than creating an app for that purpose. Both mobile web based content and content within mobile apps will continue to exist. (Ericsson)

Regardless of what happens with apps, mobile display advertising will still continue to exist both on mobile sites and in applications. The question is if it is going to be in native apps or in mobile web apps. The latter would mean that application ads are actually turned into mobile web ads. Practically, this has no or very limited affect on the end-user experience in terms of mobile display advertising.

5.5.1 Privacy

In the following sections, Ericsson’s and Inmobi’s view of privacy in a mobile display advertising context will be presented and analyzed. In this section the companies’ view of privacy on a more general level will be dealt with. In the sections following after it, the companies view of privacy will be related and compared to the traditional mobile/SMS advertising norms associated with Permission, Relevance and Control.

On a general level, privacy is regarded as very important within Ericsson. It is important to comply with all sorts of legislation as well as privacy norms. As an example, Yeung mention the need of end-user consent to send SMS push advertising to them. Ericsson designs their solutions so that they are applicable on a global level. In terms of privacy, this in general means that they comply with the strictest legislation, in order to make sure that no laws are broken. As for the example of user consent for SMS push advertising, there are legal requirements to have that in many countries but not all, which means that such a privacy policy can be applied in countries where it is not a legal requirement. On the other hand, there is a possibility to disable such functions if they are not considered to be needed. An assessment has to be made on a case by case basis. (Ericsson)

At Inmobi, privacy is a central issue. Privacy is very important for Inmobi to take into consideration when running operations. “It is core to our business, and our strategy” Kennedy says. Kennedy’s understanding is that Inmobi have one general privacy policy that covers all their forms of advertising, which basically makes sure that they are compliant with laws in all markets they are live in. Being compliant with the laws is the main concern of Inmobi when it comes to privacy. “We are compliant in every market that we are live in” Kennedy explains. Kennedy further explains that being a global player, legalities and complying with laws in different countries is very complex. He believes that EU laws, associated with privacy, is the strictest, so Inmobi’s point of view is that as long as they operate in accordance with the EU laws they should be all right in other markets as well. However, Kennedy emphasizes that there are other countries with very sophisticated legal systems such as Singapore for example. There is therefore a need to make sure that operations are in accordance with such markets legislation. This is a big challenge for Inmobi. As a summary of Inmobi’s viewpoint of privacy Kennedy says that their goal is to be compliant with all the laws, and that they take privacy really seriously. (Inmobi)
It is obvious that both Ericsson and Inmobi view consumer privacy as something important to take into consideration. Furthermore, both companies are very keen on complying with laws associated with privacy. Inmobi explicitly aims run their operations in compliance with the legislation within the EU, which is the strictest, and Ericsson has a similar strategy since also in practice complying to the strictest legislation, even though a case per case assessment is always made. Basically this means that the two ad networks are both running operations in accordance with the data protection act from 1998, which can be found in The National Archives (n.d.B), and in accordance with article 13 in the *EC directive on Privacy and Electronic communications* of European Parliament and the Council of the European Union (2002, p.9), both which were discussed in section 3.3.

However, as discussed in (Chaffey, 2009, p.216-217) also, presented in section 3.3, laws are not available everywhere, which is also evident from what both Inmobi and Ericsson says about privacy in general. Associated with this issue, Kennedy said that all companies within the industry are trying to figure things out at the moment and that no company is really interested in taking advantage of people. But since everything is really new, they are not really sure about how to act. In addition, people making the laws have difficulties understanding the industry and therefore good laws are lacking. (Inmobi)

This means that ad networks have a big responsibility associated with acting ethically correct and fair to end-users in situation where privacy concerns might arise. Such situations could for example be associated with the three main privacy factors in focus in this thesis. How Ericsson and Inmobi handle privacy issues related with the three factors will be scrutinized in the following three sections.

### 5.5.2 Permission

Recall the implication associated with Permission, which was based on the literature review, of mobile /SMS advertising studies, performed in chapter 3. The implication was: *The importance of SMS/Mobile advertising being opt-in/permission based.*

As for mobile display advertising, there is no basic requirement that an end-user has to be opted-in in order to get exposed to advertising served by Ericsson’s Ad Market on their mobile phones. Yeung compares exposing people to mobile display ads with end-users visiting a web page and getting exposed to ads. In such situation there is no need for approval from end-users to show ads. (Ericsson) Mobile ads served by Inmobi are also not opt-in based (Inmobi). This is obviously not in line with what previous studies regarding SMS advertising suggests, e.g. Barwise and Strong (2002, p.18) that stress the importance of explicit permission from consumers to send ads and Bruner and Kumars (2007, p.5) which argues in favour of opt-in strategies.

As for risks for privacy concerns associated with this among end-users, Kennedy would separate between privacy concerns and straight up monetization issues. In general, mobile display ads are associated with the latter. Inmobi’s point of view is that the former is associated with whether or whether not data possessed about users is personally identifiable or not. Information should not be able to track who you are, that is where the legal distinction is going to be made, Kennedy believe. Mobile display ads mirrors PC web and the end-user value proposition of mobile display
ads is very straightforward, i.e. the free content. The free content makes advertising justifiable. (Inmobi) As already pointed out in section 5.3.2, free content is viewed to be the main consumer advantage associated with mobile display ads both by Ericsson and Inmobi.

Regarding what Kennedy said about personally identifiable data, the legal implication of the data protection act from 1998 within the EU, is that user consent is needed before personally identifiable data is processed (The National Archives, n.d.D); (National Archives, n.d.E). This is in line with what Kennedy believes legal distinctions are going to be made in the future in other countries as well.

Regarding potential risks for privacy concerns associated with mobile display advertising that is not permission based, Ericsson have the following point of view: If the advertising is targeted based on context of the content, which is comparable to browsing a web page, there is no need for end-users consent before exposing them to ads and privacy concerns are not considered to be an issue. However, if the ads are targeted based on end-user profiles, i.e. user data, there are privacy concerns that needs to be taken into consideration. In case end-user profile based targeting is applied, the policy of Ericsson is to obtain end-user permission in advance. (Ericsson) End-user opt-in for receiving targeted advertising based on user-data is more linked to the Control factor which will be discussed in section 5.5.4. However, I will discuss the issue in this section since questions regarding general permission to expose end-users to mobile display ads, triggered both interviewees to reflect upon permission to expose end-users to ads targeted based on user-data.

Associated with this, Kennedy says that the industry point of view in general is that as long as information is not personally identifiable, there is not a big privacy issue, the information that ad networks like Inmobi possess does not tell anything about the identity of users, in contrast to online social networks like Facebook for example. Facebook actually knows who their users are and possess a lot of personal identifiable data about them. This is something Kennedy believes should be off-limit and that it will be in the future. (Inmobi)

The user-data processed by Ericsson is also anonymous. Yeung explains that the information held by Ericsson is in no way linked to the identity of end-users, i.e. it is not personally identifiable. This highlights a difference between the two ad networks policies, in terms of end-user permission to use user-data for targeting purposes. Both companies only process user-data that is not personally identifiable. Ericsson`s policy is to apply targeting based on user-data/user-profiles only after getting permission to do so from the end-user in order to avoid privacy concerns. The policy of Inmobi on the other hand does not disallow such targeting without end-user permission. However, it should be emphasized that the policy of Inmobi should be seen as very fair to end-users, which also goes for Ericsson of course.

When it comes to general permission to expose end-users to mobile display ads, Ericsson and Inmobi have the same standpoint. Consumer opt-in is not applied, and this is justified by the free content acquired by end-users thanks to the advertising. This is an argument that is basically impossible to disagree with. Interesting though, is to observe that the traditional mobile/SMS advertising norm regarding permission, which was established through Bruner and Kumar (2007, p.5); Bamba and Barnes (2007, p.825); Tsang, Ho an Liang (2004, p.70); Barwise and Strong (2002, p.18); Läppäniemi and Karjaluoto (2005, p.207) Dickinger et.al (2005, p.168) and Barnes and Scornavacca, (2008, p.414) in section 3.4.3, does not apply to a mobile display advertising
context, nor is it applied. This is however not very surprising since SMS advertising have a much more intrusive nature than mobile display ads. This is mainly due to that a receiver of SMS advertising does not know nor can he/she control exactly when it will be delivered.

5.5.3 Relevance

The main implication from the theoretical framework regarding Relevance was: The importance of SMS/Mobile advertising being relevant.

In order to achieve relevancy in ads served, Ericsson provides targeting tools for advertisers to use. There are three ways for ads served by Ericsson’s Ad Market to be targeted when requested by publishers. Either based on a user-profile possessed by the publisher, a user-profile possessed by Ericsson or based on context. Advertising targeted based on end-users profiles that are owned by Ericsson are opt-in based. Demographics, such as Gender, Age, City and zip code obtained through the opt-in. Furthermore, end-users select different areas of interest that they are willing to receive advertising about. Behavioral information is not held by Ericsson due to legal complexities associated with handling such information. (Ericsson)

Kennedy explains that Inmobi’s model is a bit different than other networks. Inmobi apply a CPC model. If comparing Inmobi’s approach with a traditional approach to advertising, which could mean posting ads on a website, based on the context of it, Inmobi works a bit more like Google. Google’s model is based on relevancy. If searching for cars, a car ad is shown for example, in that way the advertising is based on behaviour of the user. Similarly, Inmobi’s approach is to have advertisers putting their ads on their network, and over one week, based on how people click the ads optimization is performed. In this sense, Inmobi’s approach to how advertising works is very different compared to a traditional approach. Inmobi strives to obtain relevant advertising by user-data collected, being “databased” and used for optimization of ads. Such information could for example be what handset an end-user has. Furthermore the content is categorized and used for targeting purposes, i.e. context based targeting. Optimization can also be based on country or city of the end-user. Kennedy exemplifies that if you are in London or Paris and owns an iPhone it is reasonable to assume that you probably are a high value consumer. Accordingly, a high end car could be targeted to such users. (Inmobi) The example of performing targeting based on what city consumers are located in is in accordance with what was suggested in Dickinger et.al. (2005, p. 167-168) regarding personalizing advertising, as an example targeting based on location was mentioned. However, it could be questioned if the kind of targeted advertising suggested is narrow enough to be regarded as personalized, and how high the consumer value generated from it really is.

Inmobi do not work directly with operators. Instead they work together with app developers and mobile web content providers. They place their ad codes into their publications, which enables them to run the ad, and Inmobi work with them to do the ad optimization. Inmobi’s point of view is that targeting of ads is advantageous for both advertisers and end-users. Advertisers can reduce their costs and end-users will receive relevant advertising. (Inmobi)

Ericsson has a similar point of view. Regarding targeting Yeung says: “we do targeted advertising, that is our business”. It is basically possible for advertisers to dountargeted advertising through Ericsson’s network. However, advertisers have nothing to gain from that since it is more expensive to expose people for whom the advertising is irrelevant. Targeting is
also by Ericsson regarded as something positive for consumers since ads will be relevant. Except for being cost-efficient, relevant ads also prevent potential negative effects on brand image of advertisers. (Ericsson) These negative effects on brand image can be relate to what previous studies has concluded regarding relevance and acceptance, e.g. Trappey and Woodside (2005, p.383-384), in which it was concluded that there is a correlation between relevance and acceptance of SMS advertising. This is presuming that unaccepted advertising have a negative effect on brand image.

It is however possible that ads served are not relevant. Ads always being relevant is something Inmobi cannot secure. They cannot control who wants to advertise. Different products gets popular at different times of the year, therefore Inmobi cannot always make advertising relevant. For example, if an app with a summer context is being used during the winter, advertising related to the context of the app might not be available. In such case, relevancy is hard to obtain based on context. (Inmobi)

As for Ericsson, even though targeting is applied there is a possibility that the advertising will not be relevant for the end-user getting exposed to it. For example if not enough information has been obtained about the user to achieve a good match between the user and the ad served. Regarding contextually targeted ads, Yeung says that they will always be relevant to the context of the site or the app and because of that he believes that the end-user will not perceive the advertising as irrelevant. (Ericsson)

Regarding potential risks associated with ads that are targeted but not entirely relevant to the end-user getting exposed to it, Yeung says that in general he does not see any great risks. Advertisers in such case do not get much value for their money since consumers will not observe ads if they are not relevant or interesting. From a consumer point of view, Yeung basically believe that display ads will normally not be noticed if they are not relevant and will therefore not be regarded as intrusive. (Ericsson)

In an SMS advertising context, irrelevant ads, as showed in several previous studies, would lead to consumer not accepting it, which is showed in the conceptual model based on previous research which was created by Läppäniemi and Karjaluoto (2005, p. 208-209). It shows that personalization of ads is one of the main factors driving consumer acceptance of the advertising. Ericsson’s view on this matter is therefore quite interesting since it indicates that irrelevant ads in a mobile display ad context is mainly disadvantageous for advertisers since they will waste money, rather than a source raising consumer privacy concerns.

As for Inmobi´s view on the same matter, Kennedy says that advertisers will leave if the approach does not work. In terms of consumer privacy, he says that end-users will be getting ads that they don’t like, that are not relevant, which is not good for anybody. He adds that everybody within the industry wants the ads to be relevant and that he thinks consumers want that too. Everybody is working to make that happen. However, digital media is a very different category than traditional media. Advertising in the traditional sense does not work that well in a digital context. Social network websites for example have tons of page views. However, those page views are not relevant to any ads. People are not reading about cars or other product categories but their friends’ content. Consequently, advertising on such sites is hard to get relevancy out of and to monetize. The technology that is used by ad networks, including Inmobi, is an attempt to
monetize advertising on all such pages. “You can’t beat relevancy” Kennedy says, that is why Google works so well. (Inmobi)

Both Ericsson and Inmobi focus a lot on providing tools for targeting, i.e. tools for obtaining relevant advertising, for their advertisers. This is something that is viewed as important. The general impression regarding consumer privacy associated with Relevance is however that both Ericsson and Inmobi are primary providing means for executing relevant advertising for advertisers to benefit from cost efficiency and not to prevent consumer privacy concerns to arise. However, the risks for privacy concerns associated with irrelevant mobile display advertising seems to be viewed as very moderate by the ad networks, and in light of that, the focus primary being on advertisers’ interests is logical. The disadvantages associated with irrelevant ads are however clear for advertisers since that would make them waste money. The ad networks therefore need to provide targeting tools enabling relevant advertising, and potential consumer privacy concerns associated with irrelevant ads could therefore be said to be prevented as a positive side effect. However, as the results show, ads are not always relevant to the consumer getting exposed to it. It can also be questioned if ads targeted only based on context should be considered to be relevant.

Based on the discussion in the previous paragraph, I would say that the implication associated with privacy regarding SMS advertising and Relevance, which was established through Dickinger et.al. (2005, p. 167-168); Bamba and Barnes (2007, p.826); Barwise and Strong (2002, p.17-18); Läppäniemi and Karjaluoto (2005, p. 208-209); Trappey and Woodside (2005, p.383-384) and Carrollet.al. (2007, p.91) in section 3.4.4, is partly applied to a mobile display advertising context by the ad networks. This is primary due to that the ad networks are putting a lot of effort into serving relevant ads, but on the other hand, preventing consumer privacy concerns are not the main motive for this. Even though risks for privacy concerns related to irrelevant mobile display advertising might not be big, especially in contrast to an SMS ad context, my personal opinion is that consumers that are willing to receive ads targeted based on user-data or consumer profiles of some kind should be able to expect more from ad networks, in terms of relevancy. This is something I will further elaborate on in section 5.8.

5.5.4 Control

The implication of studies associated with mobile/SMS advertising regarding Control was: *The importance of consumer control over personal information.*

As discussed in previous sections in this chapter, the user-data Ericsson process is demographics and interests of consumers. None of the information is linked to identities of consumers (Ericsson). Inmobi collects information such as handset and location of consumers. The information is not personally identifiable (Inmobi).

This is interesting considering what Rust et.al (2002, p.455-456,461), writes about regarding how hard it is to stay anonymous as a consumer when online transactions are executed. Apparently, consumers’ identity will never be revealed by any of the ad networks, which contradicts what is stated in the study. This could be seen as a reflection of the development within this field after 2002 when the study was performed.
Consumers have possibilities to control the information Ericsson owns about them by having the option to opt-out from receiving mobile display ads targeted based on user-profiles in order to prevent privacy concerns. In some cases, they can furthermore change the data in their profile. The general privacy policy of Ericsson regarding how information is handled is to comply with laws in the countries they operate. (Ericsson)

Inmobi’s policy regarding how information they possess about end-users is being handled is that they do not share it with any third parties unless they are legally obligated to do that. The information is furthermore only held for a limited period of time, and then it is deleted. Their aim is to handle consumer data in a clean and efficient way. (Inmobi) This is associated with their determination of being compliant with laws in every region that they operate within.

Inmobi does not at the moment provide an option of opting-out of receiving ads targeted based on user-data. Kennedy explains that it is something that is discussed within the industry and that some networks provide such an option. Basically it is possible to build in an opt-out feature and make it available for people who want to opt-out. Ultimately this might happen, which he thinks would be fair. However, since there is not that much data collected it is not as much of an issue as for Facebook for example (As discussed in section 5.5.2). On the mobile web, there is a lot less information that can be collected than can be, and is collected through the pc web on cookies etc. (Inmobi)

Apparently, Ericsson and Inmobi have different strategies regarding consumers’ possibility to control information held about them. Ericsson provides an opt-out feature from receiving ads targeted based on user-data, and in that way consumers can control the information held. This is in accordance with Bamba and Barnes (2007, p.826) an important way of getting consumers to opt in and thereby accepting advertising, as discussed in section 3.4.5. Furthermore, consumers can in some cases access and change their profiles. In additions as discussed in section 5.5.2, consumers’ permission to target ads based on user-data needs to be obtained before exposing consumers to such ads in the first place. Inmobi on the other hand does not provide an option for consumers to opt-out of advertising targeted based on user data, nor (as discussed in section 5.5.2) is such targeting permission/opt-in based.

Despite differences in strategies, I believe it is quite obvious that both Ericsson and Inmobi are acting in a fair manner towards consumers. The data gathered not being personally identifiable, basically makes all privacy concerns associated with Control unnecessary. However, it is likely that all consumers are not aware of exactly what kind of information that is stored and some people might have concerns due to that reason. Others might be concerned simply based on distrust, i.e. not believing that ad networks actually are not storing personally identifiable data. Providing an opt-out option from targeting based on user-data is therefore an easy way for ad networks to avoid concerns among consumers, at least regarding how information held about them is used for advertising purposes since that would be easy to discover.

In order to relate the two ad networks policies and point of view to the implication based on the literature review of studies on SMS advertising, associated with Control, which was established through Rust et.al (2002, p.455-456,461); Dickinger et.al. (2005, p.168); Unni and Harmon (2007, p.7, 15) : Bruner and Kumar (2007, p.5); Bamba and Barnes (2007, p.826) and Bauer et.al. (2005, p.185,188) in section 3.4.5, I would say that the implication is partly applied to a mobile display advertising context, but on the other hand it is not entirely applicable. It is partly
applied since Ericsson is providing options for consumers to control if data about them is used for targeting purposes, which Inmobi in contrast is not. On the other hand, by excluding personally identifiable data from being stored, in combination with not sharing data with third parties, the very need for consumer control is dramatically decreased or perhaps eliminated. The main implication regarding the control factor and mobile display advertising would therefore be that there is a limited need for consumers to control data.

5.6 General reflections of the interviewees

Related to the challenging situation of ad networks and publishers to keep up with privacy rules and norms Kennedy says: The mobile web is going to evolve very fast, and it is therefore going to be hard to keep up and figure out how to make heads and tails of everything. That is a challenge for everybody in the industry. Being a third party however, Kennedy is not as worried about Inmobi. Apple for example, will face a greater challenge since they possess a lot more data and data that are potentially personally identifiable, such as credit card numbers, what you buy in the stores etc. This in combination with good laws protecting people not being in place creates a challenging situation. However, he says that all businesses are trying to build their business and make money in a way that is fair to everybody. It is hard to know where to draw the line though, he says, but this is something that will work itself out the next couple of years. He believes the distinction should be made between what data is personally identifiable and not, and then figure out a fair policy accordingly. There should definitely be restrictions on how personally identifiable data can be used. (Inmobi)

Yeungs reflections regarding the same subject are: In general regarding apps, Yeung believe it is important that there is an option for consumers to pay for applications instead of getting apps financed by advertising. Since consumers basically “pay” for free apps by giving away their profile, and since this is sensitive to some individuals, the option should be available. It might be good if it is stated before an app is downloaded if it is financed by ads or not. In that sense consumers that are unwilling to get exposed to ads always have the possibility to not download it and in that way avoid advertising. He compares such an approach with web browsers informing consumers when the web page is about to fetch content from another domain, which often is advertising. On the other hand, he again emphasizes that advertising drives the development of internet web technology and thereby play an important role which is something that people need to realize. (Ericsson)

5.7 Conceptualization of Findings

In table 2 a conceptualization of findings can be seen. Evident from the findings are that implications based on previous research regarding SMS advertising associated with the three privacy norms, varies in the degree they are valid in a mobile display advertising context. The implication regarding Permission is not valid at all, whereas the implications for Relevance and Control are partly valid. Specific implications associated with the privacy factors and mobile display advertising can also be seen in table 2, as well as a general implication regarding privacy.
Table 2 – Conceptualization of findings

<table>
<thead>
<tr>
<th>Implications associated with privacy and SMS advertising.</th>
<th>SMS advertising privacy implications valid in a mobile display advertising contexts?</th>
<th>Specific implications associated with privacy and mobile display advertising contexts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permission</td>
<td>The importance of SMS/Mobile advertising being opt-in/permission based.</td>
<td>NO</td>
</tr>
<tr>
<td>Relevance</td>
<td>The importance of SMS/Mobile advertising being relevant.</td>
<td>PARTLY</td>
</tr>
<tr>
<td>Control</td>
<td>The importance of consumer control over personal information.</td>
<td>PARTLY</td>
</tr>
<tr>
<td>General Impression</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.8 Reflections and Suggestions

There is no doubt about that ad networks view consumer privacy as something very important to take into consideration. Regarding the Permission factor, it cannot really be argued against the ad networks point of view of advertising being justified by the free content acquired by consumers due to the advertising. The Control factor is also logically considered to be of less importance when personally identifiable data is not stored by ad networks. An option enabling consumers to control information about them stored is however still reasonable to provide. My point of view is
that consumers should be given as much control as possible in all aspects. That way, privacy concerns will not be an issue. This does not only mean that consumers should be able to control what personal information that cannot be used for targeting purposes, which is the case when there is a possibility to opt-out of receiving ads targeted based on user-data. It also means that consumers should be able to control what information that can be used for targeting purposes to a very great extent. Ad relevancy will then increase. I believe that there are improvements possible to make for ad networks when it comes to Relevance of advertising. Should ads targeted based on context be considered as relevant for example? Such ads can definitely be relevant every ones in a while, and they are probably not totally irrelevant very often. However, it is probably quite rare that they really catch the attention of a consumer. In this section, I want to elaborate further on what ad networks can improve in terms of relevance of advertising.

First of all, I think it is fundamentally wrong to approach targeting of ads primary having advertisers’ best interests in mind. Targeting should when possible not be viewed as a way for advertisers to reach out to their target market with advertising, but as a way for consumers to obtain as much benefits as possible provided by advertisers. The characteristics of the mobile medium and the devices it is carried out through enables this kind of approach to targeting. That is why the medium is so unique and has such a great potential. By putting consumers in control over what information that can be used for targeting purposes, real consumer benefit creation can be accomplished for the ones who are prepared to let advertisers use their personal data for targeting purposes. However, not all consumers are willing to do that. Therefore such benefits cannot be accomplished for everybody. Roughly, I think consumers can be categorized into three categories when it comes to willingness to reveal personal data. Those can be seen in table 3. The first category is the consumers who do not want any of their personal data to be used for targeting purposes. Such consumers are hard to create real benefits for. Their privacy has to be respected of course, and they will have to settle with free content and ads targeted based on context.

Table 3 - Consumer categories – willingness to reveal personal data

<table>
<thead>
<tr>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>No targeting based on personal data accepted</td>
<td>Targeting based on personal data that is not personally identifiable accepted</td>
<td>Targeting on data that is personally identifiable accepted</td>
</tr>
</tbody>
</table>

The second category is the consumers that are willing to receive ads targeted based on data that is not personally identifiable. Those will receive more relevant ads than the ones in category one, but the possibilities of targeting is still quite limited. The kind of targeting accepted by consumers in category one and two is the kind of targeting provided by the ad networks included in this study. There is however a third category of consumers. Those are in category three, and are the ones who are willing to reveal a lot of data about themselves, including personally identifiable data, in order to receive targeted and beneficial advertising.

“Category three consumers” are more or less ignored by ad networks only providing targeting options that are accepted by consumers in category one and two. This is a sure sign of advertisers’ interests being put first. If putting consumers’ interests first, this category of people
wanting and expecting highly relevant, personalized and beneficial advertising would not have been left without a solution. How big this category is, is very hard to say. However, I assess the growth potential to be big if consumers start receiving highly beneficial mobile ads and start talking to their friends about it, and how they have obtained it.

Category three consumers should be able to control exactly what kind of information that advertisers can use in order to target ads to them. This information should be obtained through a very sophisticated opt-in procedure, in which very detailed information regarding different categories of interest can be revealed by consumers. Opt-in is obviously already applied by ad networks, but it is not as sophisticated as it should be according to my point of view. All information revealed should of course be optional, constantly accessible and changeable for consumers. Ad networks furthermore need to come up with creative solutions for stimulating such opt-in, which will require resources. In addition, creative solutions for obtaining other data about consumers than information obtained through opt-in are needed. Such information could for example be about what a consumer plans to do tomorrow or what a consumer is doing right now, which Facebook constantly is obtaining through status updates, and target ads accordingly. My point is that if ad networks change the way they think about user data collection into primary being about creating consumer benefits, they will come up with solutions for obtaining permission to gather data which can be used in accordance with the motive behind gathering it. That would be beneficial for all stakeholders, advertisers not least.

My discussion is basically about how to take advantage of the unique features of the mobile medium. I believe this is the way to attract advertisers to start doing advertising through the medium. During the interview, the Inmobi representative explained that advertisers might be reluctant to use mobile advertising since they have so many channels available, including the internet which they have just learned how to use. Too many choices, he says, creates trouble to manage advertising through all channels. I believe the point he makes is very important. Advertisers are just like consumers, they do not want more options they want less but relevant options. I furthermore believe that the way to attract advertisers is differentiation. Differentiation is achieved by leveraging the unique features of the medium. Even though advertising through the two ad networks investigated surely is a very competitive option and is already a very good option for advertisers, it does not point out as much as you could expect it to do.

Finally, to relate this discussion to consumer privacy: If consumers are put in control, and solutions for providing advertising targeted based on the level of information each and every consumer is willing to expose, and the advertising is at a corresponding relevance level, privacy will not be an issue.
Chapter 6 Conclusion

In this chapter the answer to the research will be given. The main contributions of the study will furthermore be highlighted and finally suggestions for future research will be given.

6.1 Answer to the Research Question

The research question for this thesis was: *To what extent is mobile/SMS advertising privacy norms, associated with permission, relevance and control, applied to mobile display advertising contexts by mobile ad networks? How is this motivated?*

- As for Permission: The SMS advertising norm of advertising being permission based is not applied by the ad networks studied in mobile display advertising contexts. The motive behind not applying such an approach is that the advertising is regarded to be justified by the advertising generating free content for consumers.
- As for Relevance: The SMS advertising norm of keeping advertising relevant in order to avoid privacy concerns among consumers is partly applied by the ad networks in mobile display advertising contexts as well. The aim is to keep ads relevant, but the motive behind this approach seems first and foremost to be about creating advantages for advertisers and not to prevent privacy concerns.
- As for Control: The SMS advertising norm of putting consumers in control of how information held about them is being used, is partly applied in mobile display advertising contexts. Ericsson is providing an opt-out option of targeting based on personal data, whereas Inmobi is not. Preventing privacy concerns is the motive behind providing an opt-out option. The motive behind not providing such an option is that no personally identifiable data is being collected.
- As for the ad networks general attitude towards consumer privacy: Both ad networks included in the study regards consumer privacy as a very important issue. They are furthermore doing their best to act fair towards consumers and to not in any way violate their privacy. Being compliant with laws is the main concerns of both ad networks, which can be very challenging due to a lot of variation in legislation on a global level.

Based on the summarized findings above, my answer to the research question is that mobile/SMS advertising privacy norms associated with permission relevance and control is only partly applied. The reasons for applying/not applying the norms are all reasonable. There is furthermore no doubt about that the acts of ad networks are greatly influenced by wanting to uphold consumer privacy.

Within the framework for this study, it can be concluded from the findings that general Permission to expose consumers to ads, which in previous research often is presented as a precondition for consumer acceptance of mobile advertising, is a norm that is not applicable in mobile display advertising contexts. This is due to the value proposition of free content associated with the advertising. Permission not seen as needed is in no way surprising since the previous research regards SMS advertising, which has a much more intrusive nature than mobile display ads.
It can furthermore be concluded that consumer Control is a factor that is regarded as important by the ad networks that participated when it comes to upholding consumer privacy, even though it perhaps does not entirely apply since no personally identifiable data is stored. Relevance of ads remains important, and is something both ad networks are striving to obtain. However, I believe more can be done in terms of Control and Relevance by mobile ad networks. As discussed in section 5.8, consumers should be able to control what information that ad networks can provide for advertisers to use for targeting purposes to a much greater extent. Consumers should be given the possibility to reveal very detailed information, to not reveal any information at all, and everything in between, as well as possibility to access and change information at any time. Then consumers will be fully in charge of the information held about them and also greatly being able to influence the relevance of ads targeted to them. Privacy would then not be a big issue. Furthermore I think a fundamental change of thinking in terms of the use of personal data in order to create value is needed. The main focus should be on creating consumer value and not as now on creating advertiser value, at least for consumers willing to reveal enough data about themselves to enable real value creation.

6.2 Contributions of the study

Established through the findings in this study is that the way consumer privacy is viewed by mobile ad networks playing on the mobile advertising market, in comparison to how it has been established by previous research on mobile advertising that it should be viewed, remain unchanged in the sense that it is regarded to be important. However, the change within the mobile advertising industry, associated with new forms of advertising being available for advertisers through the medium and what information that is being collected about consumers, do have an effect on what privacy norms that are and should be applied. I view this as the main scientific contribution of this study.

On a more practical level, I believe it is highlighted that there are some issues that ad networks need to look into, in particular in association with consumer control and relevance of ads served. This I view as the main practical contribution of this study.

6.3 Suggestions for Future Research

I believe future research need to establish theories regarding what privacy norms that are and should be applied associated with mobile advertising of today. Since this is a qualitative study with a research design not enabling results obtained to be generalized, a qualitative study with a research design making such generalization possible, or a corresponding quantitative study on the subject would be necessary in order to complete step number one in the process of determining what privacy norms that should be applied in mobile display advertising contexts, which was discussed in section 1.4.

Next, the second step would be to perform research in order to complete step number two in the process which was also discussed in section 1.4, i.e. investigate consumers point of view associated with privacy and mobile display advertising.

Another subject that has been touched in this study is consumers’ willingness to reveal personal data. It would be interesting to see a study on how much data consumers are willing to reveal in
order to get beneficial advertising out of it, and how big the proportion of consumers that are
willing to reveal personally identifiable data is.

Since mobile advertising today is a lot about mobile web display advertising a study comparing
mobile web display ads with web display ads in terms of perceived intrusiveness and potential
privacy concerns associated with that would be a logical approach for a study.
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Appendices

Appendix 1 – Interview Guide

Pre-interview

- Inform the subject about the interview being recorded.
- Assurances
  - Recordings only for my own reference.
  - The interview will be transcribed and sent to the subject for approval.
- Inform the subject of the purpose of the study.
  - Through previous research, some norms associated with non-intrusive mobile advertising campaigns have been established.
  - The research is basically based on SMS advertising.
  - What I am investigating, is if these norms which are related to privacy, are applied to more modern forms of mobile advertising, in particular I am focusing on mobile display advertising
  - I hope that this will give some insights regarding the development of the mobile medium and how mobile advertising is executed through it, and all this in relation to privacy of consumers
  - I am focusing on display ads, such as banners, which are pushed on consumers – since I believe that kind of advertising is most likely to cause privacy concerns.

Part 1 – General questions

- (About the subject)
  - What is your name?
  - Position?
  - Years of employment?
- (About mobile advertising)
  - In what countries do your company operate?
  - Which are the biggest markets for your company (associated with mobile advertising)?
  - Market shares?
  - How big part of the mobile advertising is in-app advertising/mobile web?
  - Future forecasts? – What do you expect from the coming 5 years - in-app vs. mobile web advertising?
Part 2 – The mobile medium

- How do your company view the potential of the mobile medium?
  - What are the Main advantages/disadvantages compared to other media?
  - From an advertiser point of view?
  - From a consumer point of view?
  - Do you have anything to add regarding in-app/mobile web? Specific advantages/disadvantages associated with in-app/mobile web advertising?

Part 3 – Privacy

I will ask you some questions associated with mobile display advertising and your view of privacy

I will also relate this to privacy norms for SMS advertising that has been established by researchers

- What is your company’s view of privacy issues associated with mobile advertising general? Is this something that you regard as important, or not so important?
- Do you have different privacy policies for different forms of mobile advertising? Display ads?
  - (Permission) According to previous research on SMS advertising, advertising should be opt-in/permission based - Otherwise privacy concerns might arise.
  - According to your point of view, is there a similar risk that privacy concerns might arise if mobile display ads are not opt-in based?
  - What is your company’s privacy policy associated permission and mobile display advertising? Is mobile display advertising advertising opt-in based? Why/Why not?

- (Relevance) In an SMS advertising context research have shown that the relevance of ads is very important for driving acceptance of such advertising.
  - Do your company make sure that mobile display ads served by you are relevant for consumers getting exposed to them? How? What are your targeting tools?
  - Is mobile display advertising always relevant?
  - Do you require advertisers to target their advertising? Why/why not?
  - If untargeted advertising take place, how common is it? Proportion targeted vs. untargeted ads?
  - Do you feel that there are any risks associated with mobile display advertising that is not targeted?
(Control) Previous studies on SMS advertising shows that it is important for consumers to be in control of information held about them, and what information that is given to third parties. This in order to accept SMS advertising.

- What kind of information can you access about consumers?
- How do your company handle information you hold about consumers? In particular potentially sensitive information, such as Location sensitive information and past behavioral and purchase behavior information credit card numbers and so on.
- What are the possibilities for consumers to control what information about them is used for marketing purposes? Can they opt-out of receiving ads targeted based on some personal information? Why is that?
- What kind of information can be controlled?

To summarize:

What privacy issues associated with mobile display advertising do you perceive to be the most important for your company to consider?

Do you have something you would like to add?

Thank you!