

8. The mediating effects of privacy and preference management on trust and consumer participation in a mobile marketing initiative: a proposed conceptual model

Michael Becker and Michael Hanley

INTRODUCTION

In recent years the adoption of mobile phones and associated voice and data wireless services has swelled, a trend that does not seem to be slowing. Today, there are more than 227 million mobile subscribers in the United States (75 per cent of the population), up from 208 million in 2005 and 182 million in 2004 (CTIA, 2006), and more than 2.5 billion mobile subscribers worldwide. In many industrial countries it is commonplace to see mobile penetration rates exceeding 100 per cent. Current predictions estimate mobile subscriptions to surpass 3.5 billion worldwide by 2008, with much of the growth coming from emerging markets.

The growth trend of mobile services adoption has not been overlooked by marketers. Many marketers have recognized that engaging consumers through the mobile channel with personalized, informative and entertaining mobile and mobile-enhanced, traditional media marketing initiatives (Bauer et al., 2005; Becker, 2005; Leppäniemi et al., 2006) can be an effective means of increasing brand awareness, lead generation and revenue. Mobile marketing is no longer a fad; it is here to stay. Mobile marketing programs will proliferate as more marketers employ mobile and mobile-enhanced traditional media programs (Becker, 2005) to engage their target audiences. Gerry Purdy, a leading mobile industry analyst, notes that 'the most important medium for advertising in the 21st century is going to be the cell phone, not print media, not billboards . . .' (Purdy, 2006).

Marketers are also beginning to recognize that the mobile channel far surpasses any other marketing channel's ability to capture consumer data for the purposes for marketing and consumer profiling. As Fish (2007) points out:

our mobile device is not only with us, it is increasingly part of us; it has become for many users the most personal thing. The mobile device . . . can capture your 'Digital Footprint,' which is our daily actions and activities – when we start moving in the morning, what information was searched, requested or delivered, where we have been, where we stayed and for how long. Relationship analysis using our contact base would detail who we were with and who was nearby. Other 'Screens of Life' will be unable to repeat this data collection feat, at best a fixed access Web model may get 10 per cent of the available data of your daily pattern, TV maybe 1 per cent, but the mobile device opens the possibility of 90 per cent.

Consumers are increasingly demonstrating a willingness to use their mobile phone for a broad range of mobile services, such as TV voting, polling, and alert services; however, there is increasing evidence that consumers, in part due to a realization that an extensive amount of their personal data may be collected through the mobile channel and potentially misused by marketers, are showing a concern for their privacy when it comes to engaging or being engaged through their phone (Hanley and Becker, 2007; Mobile Marketing Association, 2006). This then raises many questions. For instance, how might marketers alleviate consumer privacy concerns in order to increase consumer participation in mobile marketing initiatives? In turn, should this participation lead to increases in brand awareness, initial and repeat sales and customer loyalty?

This chapter will attempt to answer these questions, provide an overview of mobile marketing, review the four primary tenets of privacy and preferences management, and explore the concept of trust. A conceptual model will be presented that proposes a possible relationship between the constructs of trust, consumer acceptance and participation in mobile marketing, and privacy and preferences management. Implicit within this proposed conceptual model is the hypothesis that consumer participation in a firm's mobile marketing programme may be increased when consumer trust in the firm is enhanced through the firm's offering of a clearly communicated and industry best practices-compliant privacy and preferences management programme. The model further stipulates that increased consumer acceptance of and participation in a firm's mobile marketing programmes will lead to increased consumer brand awareness, customer loyalty, and initial and repeat sales of the firm's products and services.

AN OVERVIEW OF MOBILE MARKETING

The Mobile Marketing Association (MMA) defines mobile marketing as 'the use of wireless media as an integrated content delivery and direct response vehicle within cross-media marketing communications programs'

(MMA Glossary, 2006). Becker (2005) takes this definition further and explains how mobile marketing is used in two modes. First, in a purely mobile mode, marketing is conducted through on-device carrier and 3rd party portals, the mobile Internet, and situations where consumers have opted in and given permission to have information automatically pushed to them. Second, a more prominent method of mobile marketing is the mobile enhancement of traditional media, where the mobile marketing initiative call-to-action is placed in traditional media (web, email, print, TV, radio, word of mouth, and so on) in order to encourage consumers to respond to and participate in the marketing campaign via the mobile phone. Both mobile and mobile-enhanced traditional media marketing initiatives take the form of ad hoc or one-off programmes (quizzes, trivia, polls and voting, on-pack/off-pack promotions), information and entertainment alert services, and mobile commerce (both for binary content consumed on the phone and non-binary content and services).

As noted, the practice of mobile marketing is on the rise. A Forrester Research 'Interactive Marketing Channels to Watch in 2006' study reported that of the 259 US marketers questioned, 43 per cent have begun or plan to begin employing mobile marketing within their marketing mix during the next 12 months (Marriott, 2006). A Q1 2006 study commissioned by Airwide Solutions of 50 United Kingdom brands found that 89 per cent of brands are planning to employ mobile marketing within the next two years, and that within the next five years 52 per cent of the brands will allocate up to 25 per cent of their marketing budgets on mobile marketing (Airwide, 2006). By 2011 marketing spend on mobile marketing and wireless advertising is expected to range from \$3.5–\$11 billion US dollars (Gauntt, 2007; The Shosteck Group, 2006), and the mobile content market is expected to generate more than \$35.3 billion, up from \$16.3 billion in 2006 (iSuppli, 2007).

According to Marshall McLuhan and Quentin Fiore (1967), the method of communicating information has more influence on the public than the information itself. This raises questions as to how various mobile marketing methods versus traditional marketing methods may influence consumers' receptiveness of mobile marketing initiatives. The mobile device is not a simple product; it is composed of numerous converging technologies that marketers and consumers can use to engage each other in interactive communication and commerce, including through SMS, MMS, email, voice/IVR, Bluetooth, mobile internet, device resident portals, and near-field communications. The idea that marketing through the mobile channel may influence consumer acceptance and interpretation of mobile marketing messages is an important one, especially given the fact that marketing through the mobile channel is unique and unlike

any other marketing channel. Mobile marketing is personal (Barnes and Scornavacca, 2004; Karnell, 2005; Koskinen et al., 2006; SkyGo, 2001; Swilley and Hofacker, 2006), interactive (Buckley, 2003; SkyGo, 2001), time relevant (Barnes and Scornavacca, 2004; Buckley, 2003; SkyGo, 2001) and location independent (Barnes and Scornavacca, 2004). With mobile marketing, marketers can deliver highly personalized and relevant information and calls-to-action to consumers. 'Because wireless data incorporates mobility, time sensitivity, interactivity and advanced personalization, it is vastly different from any other communications or marketing channels. It presents an opportunity for marketers to literally place a brand in a consumer's hand' (SkyGo, 2001). According to the 2001 SkyGo study,

[m]obile devices, unlike PCs, usually belong to one person and are seldom shared, thus marketing messages can be targeted and customized for a particular user with a high level of confidence that it will reach its target. As a result, mobile marketing is an extremely personalized communications medium that commands the immediate attention of the consumer (SkyGo, 2001).

The concept that the mobile phone is personal and singularly important to individuals is further substantiated in the MMA 2006 Mobile Attitudes and Usage Study, a longitudinal research effort conducted by the MMA to profile consumer mobile phone usage patterns and attitudes toward mobile marketing. The study found that across all age groups, the mobile phone has become an important part of the survey respondents' lifestyle, with many respondents stating that they have become dependent on their mobile device. The study found that 82 per cent of the sample reported that their mobile phone is highly to moderately important to their daily life, and 79 per cent say that they are highly to moderately dependent on their mobile phone (MMA, 2006). The MMA study also found that individuals keep their mobile phone number over a long period of time, and people are finding more use for their mobile phone beyond simple voice communications. m:metrics reports that 57 per cent of US subscribers and 80–90 per cent of European mobile subscribers use data services (Hodgman, 2006). The personal ties between the consumer and the mobile phone seem likely to increase.

Mobile Marketing and Privacy

With the expanding variety and use of mobile marketing and the unique nature of the mobile channel, marketers must take special precautions to protect consumer privacy (Byron, 2006; Chowdhury et al., 2006; Karnell, 2005; Roussos et al., 2003). Many mirror this sentiment:

People are sensitive and privacy is an issue. An unsolicited commercial message could harm forever the relationship between your brand and your audience (Zavagno, 2004).

If mobile marketing is to be an effective and lucrative industry, it has to deliver relevant, requested, and interactive content to the customer. End-user privacy must be respected, and therefore permission marketing for opt-in, with clear opt-out instructions, is the efficient way to proceed (Kavassalis et al., 2003).

mobile marketing presents many platform challenges that do not exist in other channels. Because mobile devices are viewed as being very personal, many are still trying to understand how to deliver relevant and timely messages without seeming intrusive or creating privacy violations (Karnell, 2005).

Procter & Gamble's CMO Jim Stengel has similar thoughts on mobile marketing: 'It's all here, it's just a matter of scaling it [mobile marketing], respecting privacy and doing it in a way that puts the consumers at the center' (Byron, 2006).

Marketing professionals and academics are not alone in their call to protect consumer privacy when interacting with consumers through the mobile channel. In the 2005 and 2006 MMA attitude and usage studies, across all age groups, consumers reported the concern for their potential loss of privacy as a primary barrier to their acceptance and participation in mobile marketing initiatives (Mobile Marketing Association, 2005; 2006). MMA studies questioned consumers about what they may not like about mobile marketing, as well as the barriers that would inhibit their opting in for mobile marketing initiatives. The 2005 study notes that 28 per cent of consumers reported that they dislike the concept of mobile marketing since they believe that they may find mobile advertising intrusive, an invasion of privacy, and a waste of their personal time; in 2006, 21 per cent found this to be the case. Furthermore, the study looked at the likelihood of opting in to mobile marketing initiatives. In 2005, 36 per cent of consumers reported being bothered, invasion of privacy, time consumption, and misuse of personal time as a reason not to opt in to mobile marketing initiatives, while 35 per cent reported these reasons in 2006 (Mobile Marketing Association, 2005; 2006). Moreover, a recent study by Hanley and Becker (2007) found that 12 per cent of their sample of college students would not accept text message notification of coupons or discounts via the cell phone due to privacy concerns.

Mobile marketing is a very powerful marketing tool and marketers have demonstrated that they can cut through the fog and cacophony of traditional media with its use. However, if marketers are to protect this growing, interactive channel of communication, they must take great strides in protecting the privacy, generating and maintaining consumer trust, and respecting the preferences of mobile device consumers.

THE FOUR TENETS OF PRIVACY AND PREFERENCES MANAGEMENT

There are four common and generally accepted core elements of privacy and preference management: choice, notice, value and access.

Choice

Choice is a fundamental construct in marketing and privacy and preferences management. Bettman et al. (1998) describe, in their seminal paper on the consumer choice process, that

consumers sometimes face emotion-laden choices. Such choices arise when there are choice conflicts between goals that are very important to the individual. In such cases, trade-offs are required that the individual does not want to make, since trade-offs in such situations involve giving up attainment of some goal on which the individual does not wish to accept a loss.

In the context of mobile marketing, these choices could include whether to participate in a mobile marketing programme that may provide economic or social value, but also potentially put at risk the consumer's identity and 'control' of access to the consumer's mobile device. For some consumers, choice-enabling processes may include emotion-focused coping, which often involves avoidant behaviours. One way in which emotion-focused coping may be brought to bear on emotion-laden choices is avoidance of those aspects of the decision that are particularly emotion-provoking (that is, control of access to their mobile device). The aspect of emotion-laden choices that is most taxing is making the difficult trade-offs required, because trade-offs call attention to losses. Many researchers have argued that trade-offs are uncomfortable and are avoided when possible (Hogarth, 1987; Tetlock, 1992; Tversky and Shafir, 1992), and Bettman et al. (1998) believe this tendency is exacerbated when choices are emotion laden.

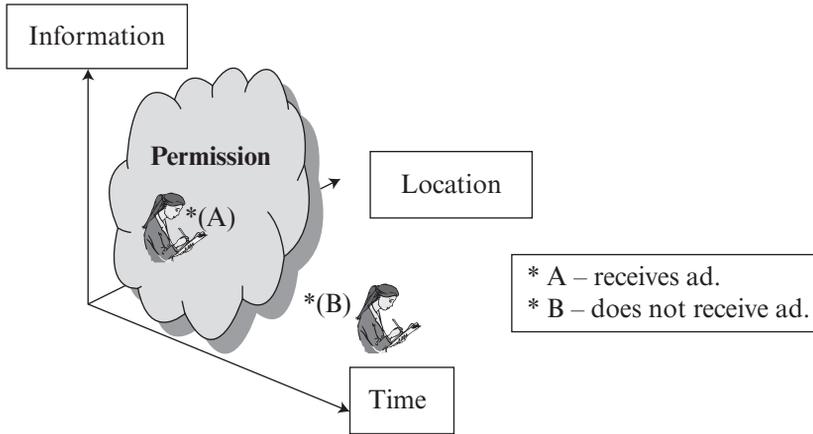
Offering choice to mobile device consumers as it pertains to privacy and preferences management is often required by government regulation, by industry best practices, and it simply makes good sense. As Barnes and Scornavacca (2004) point out, 'the idea of a message being sent directly to an individual's phone is not without legislative concerns. Indeed, all over the world, privacy and consumer rights issues lead to the promotion of "opt-in" schemes.' The idea of voluntary choice, or opt-in schemes, refers to the fact that the mobile marketer is giving the consumer the opportunity to opt in or choose to participate in the marketer's initiatives, or opt out and choose to leave and revoke their participation in the marketing initiative at any time.

The rhetoric used with opt-in call-to-action, at least on the Internet, appears to affect consumer response. For instance, in online marketing the rhetoric of choice has been found to make a difference. Johnson et al. (2002) found that 'almost twice as many people (96.3 per cent) agree to be contacted for future promotions when the question is posed with an opt-out format than an opt-in format (48.2 per cent).' It is also worthy to note that the information consumers provide is often dictated by the situation at hand (Phelps et al., 2000). For instance, during a financial transaction or interchange with a physician, a consumer may be willing to provide information that they would not typically offer in other situations, such as when opting in to a marketing promotion. Therefore, marketers must take the situational context into consideration when working with consumer choice and use the information gathered appropriately. Furthermore, Bettman et al. (1998) note that one difference between their analysis of decisions involving emotion-laden consumer choices and their analysis of the effects of accuracy and effort is that they 'have to date no easy measure for the amount of emotion characterizing a decision'. Rather,

the degree of emotion will depend in a complex fashion on the content of the decision (i.e., the specific attributes involved and their properties), characteristics of the consumer (since what is emotion laden for one person may not be for another), properties of the decision task such as the amount of the conflict, and the type of processing carried out.

The element of choice is especially important with mobile marketing given that the mobile phone and network is a personal space and marketers must be invited or given permission before entering it. The idea of choice is also one of the first elements of Godin's (1999) permissions marketing arguments. Barnes and Scornavacca (2004) define permission as 'the dynamic boundary produced by the combination of one's personal preferences, i.e. personalization of time, location and information'. The individual, they note, should be able to indicate when, where and what information he/she would like to receive. Within the mobile realm, Barnes and Scornavacca (2004) add three dimensions that must be taken into consideration when considering elements of choice: the type of programme or information that the consumer is requesting, the location of the consumer when requesting the information, and the time the opt-in is captured. The interaction between these three dimensions is depicted in Figure 8.1.

Other issues exist around choice. For instance, companies with multiple brands within multiple geographies around the world may not be able to have one global choice policy. The rules, regulations, guidelines and social norms used by marketers around the world differ significantly. With many multi-brand consumer goods companies, an opt-in to one brand in a



Source: Barnes and Scornavacca (2004)

Figure 8.1 Concept for permissions in mobile marketing

specific geography does not necessarily give the company the right to market a different brand or offering to the consumer. These arguments show that there are many dimensions of choice that must be considered within the mobile marketing mix.

The mechanics of providing choice to mobile device consumers is fairly straight forward. There are three options: the opt-in, the opt-out, and the renewal management process.

Opt-in process

Consumers can initiate their opt-in by text messaging into a service via the mobile phone, by texting alerts to 47467, or through alternative methods such as posting a phone number into the mobile service via a web form, IVR service, Bluetooth alert, image recognition, quick response code (QR), or related service. Through the opt-in process the consumer can communicate and demonstrate their choice to interact with the marketer. In many situations, however, when alternative methods are used to gain the initial opt-in, or the programme is a premium service (that is, fee service) or sensitive in nature (that is, financial, medical, or with youth), the marketer must confirm the initial opt-in. To do this, the marketer's mobile marketing application should be configured to send a second message to the consumer upon the receipt of the first message asking the consumer to reply and confirm their choice to opt in to the service and participate in the mobile programme. This second opt-in or confirmation opt-in is commonly referred to as the double opt-in process. In some age-sensitive programmes

and when marketing to youth, an additional opt-in may be required above and beyond the double opt-in. For instance, with age-sensitive programmes age verification may be needed, or when marketing to youth, parental consent may be needed per the Children's Online Privacy Protection Act (COPPA).

Opt-out process

The other half of the opt-in process is opt-out. When marketers give a consumer the opportunity to opt in they must also give the consumer the opportunity to opt out of a service and suspend all interactions with the marketer. The most common method given to consumers to opt out is to have them text message a designated or reserved keyword into a service, such as Stop, End, Quit, or Cancel (for example by texting STOP to 47467) or have them submit their STOP command via a web form or related alternative opt-out method. When the mobile marketing application service receives a text message from a consumer containing one of these opt-out commands the application and marketer must send a confirmation message to the consumer and then immediately cease sending future messages.

Automatic renewal process

The last element of choice is the automatic renewal process. Consumers should not be expected to remember when or how they opted in to a service or how to opt out; moreover, as Barnes and Scornavacca (2004) point out, the opt-in should be constrained within time, location and campaign contextual boundaries. In other words, opt-in approval should expire after a certain period of time (for example mBlox (2005) requires that if the consumer has no activity on their account within a six-month period then the consumer's opt-in should expire); if the user's location changes (if or when location is pertinent to the programme); or if the information content of the programme changes. These are standards that marketers must establish and follow. On a regular basis (daily, weekly, monthly, quarterly, or annually depending on the nature of the service and the operator network requirements) marketers should extend the courtesy of inviting the consumer to renew their opt-in consent to allow the marketer to engage them. With many services, like premium-for-fee, this renewal process is not simply a courtesy, but an industry requirement.

There are two types of renewal process models: explicit opt-out and explicit opt-in. In the explicit opt-out model, a few days before the end of the renewal period the mobile marketing alert service will message and inform a subscriber that he will automatically be re-instated, and charged in the case of premium programmes, into the mobile marketing service if he does not send a message to stop the service. This message may take the

form of an SMS, MMS, voice call, or other mobile response type. An explicit opt-in renewal model is the opposite; the subscriber is notified that they will automatically be taken out of the service if they do not reply and choose to continue the service. A few points worthy of note regarding automatic renewals: industry guidelines only require explicit opt-out renewal notifications, and most US operators only allow monthly automated services, not services that require or support daily, weekly, quarterly, or annual renewal. By respecting the consent process, marketers can achieve their objective of maintaining a long-lasting and profitable consumer relationship.

Notice

The second element of privacy and preferences management is notice. Simply providing the mechanism to facilitate choice (opt-in, opt-out or renewal) is not enough; the marketer must also provide the consumer with notice, a stated privacy policy that explains exactly what types of personally-identifiable information (PII) and non-personally-identifiable information (non-PII) the marketer is collecting. In addition, the marketer must, as part of notice, inform the consumer about how this information is to be stored, secured and used or combined with other online and offline PII and non-PII, and shared or sold, for the purposes of marketing to the consumer.

An abbreviated notice of PII and non-PII use must be prominently displayed in traditional media advertising alongside the call-to-action for the mobile opt-in. The following is a sample abbreviated mobile privacy statement:

We will respect your privacy. We obtain only the minimum amount of information needed to support billing and delivering your purchases. Your personal information will only be used for the purposes of delivering you the service you have requested and for providing customer support. At no time will your personal information be used to promote unrelated services, or shared, rented, or sold to any third party service. We will send you promotional messages only with your agreement. We comply with all state and federal information privacy regulations (iLoop Mobile, 2007).

Notice is a key element in the privacy and preferences management process for establishing trust since it is the first line of communication with the consumer. In mobile marketing, marketers can provide notice by placing their privacy and preference management policy on the Internet, by providing a text trigger (for example enabling it so that consumers can text PRIVACY to a short code so they can receive the company's privacy policy in the form

of a text message or a mobile Internet link), and providing the consumer with alternative and other traditional and mobile lines of communication. Notice, like choice, is not a static situation but an ongoing dialogue between the marketer and consumer. The key to notice is for marketers to realize that notice is not simply a placebo communication tool. Marketers must act and execute on their promises and obligations to the mobile device consumer.

Value

Value is another critical element of the privacy and preferences management process. Deighton (2004) points out that consumer PII and non-PII is a tangible asset, and consumers should be given value for sharing this with firms. 'Unless your offer is compelling and contains an incentive or reward, people will opt-out in droves and your brand will be tarnished' (Air 2Web, 2003). Typical forms of value include the offering of a coupon (although in the mobile world they are difficult to redeem), free minutes, free or discounted binary (data) content and monetary incentives.

Hanley et al. (2005) found in a mobile marketing study of college students that 'students are becoming more receptive to cell phone ads, but are not ready to give up their wireless privacy, unless of course they are rewarded, but the reward model seems to be changing'. Hanley et al. (2005) found that nearly 29 per cent of the surveyed students would accept mobile advertising if they received something free (ringtone, wallpaper, game, free minutes, free access to the mobile Internet, and so on) or monetary compensation per mobile ad delivered; 16.5 per cent would accept a quarter per ad, 20.8 per cent wanted \$1.00 per ad. In a 2006 follow-up study, 29.3 per cent of students reported that they would not accept ads at any price; however, 28.8 per cent would accept ads for \$1.00, 10.7 per cent for 50 cents, and 10.9 per cent for 25 cents or lower (Hanley et al., 2005). While the Hanley et al. study is interesting, a key flaw in the work is the lack of a definition in what constitutes mobile advertising versus mobile promotional interactive marketing. Without these key definitions it is unclear as to exactly what frame students are in when they are responding. The MMA 2005 and 2006 Mobile Attitudes and Usage studies have similar mobile marketing definition flaws.

As to exactly what value consumers should receive for opening themselves up to mobile marketing, the answer is unclear. On one spectrum the marketer may offer fixed value and consumers can choose to participate in the marketing initiative or not, depending on their interest in the offer. Conversely, Funk and Ayres (2002) and Deighton (2004) propose that an

infrastructure be built allowing consumers to auction off their privacy and set their own value based on the context of the offering, timing, location and any number of other attributes.

Access and Control

The final consumer element of the privacy and preferences management programme is access. Hann et al. (2005) found that users have a higher regard for websites when given the ability to access and update their personal information. In simple terms, the idea of access is to give consumers access and control over their PII and non-PII so that they can know what information is being collected, correct any errors in the information, or revoke access permanently to parts or all of the information. Providing access is a simple idea, but as Loyle (2006) notes, it is not an easy one to execute. Loyle (2006) raises a number of important questions when it comes to offering access to information gathered by an organization:

- What data should be accessible?
- Who should have the right to access it, and how are the rules determined which authenticate the person or machine accessing the data?
- What can be done with the data?
- What constitutes public versus private data? What one person considers private, another does not care about; how do you distinguish between the two?
- What happens with this information if it is mixed, that is PII, with non-PII, with third party data?
- What are the consequences of breaches of rules governing access to the data? Who cares?

An additional and important point also relates to ownership of the information. Deighton (2002) points out that PII and non-PII consumer information is owned by the collector of the information. Therefore, what rights do consumers really have over the information? The answer is none.

Deighton (2004) provides an account of how a user may manage their personal information as an asset, since this asset has value. The researcher argues that consumer preferences and behaviour is a particular form of self-presentation and that the consumer has their own brand or identity that they represent to the market. As Deighton observes, 'the challenge is to give people a claim on their identities while protecting them from mistreatment . . . the solution is to create institutions that allow consumers to

build and claim the value of their marketplace identities, and that give producers the incentive to respect them’.

TRUST

Trust is a common construct that appears in the privacy literature, since trust is a key factor in establishing and maintaining a healthy relationship between two parties, such as a consumer and marketer (Chellappa and Sin, 2005; O’Malley et al., 1997). Milne and Boza (1999) note that ‘improving trust and reducing concerns are two distinct approaches to managing consumer information. Contrary to existing self-regulation efforts, it is argued that when managing consumer information, the improvement of trust is more effective than efforts to reduce concern.’ Moreover, according to the privacy manager of a Fortune 500 consumer goods company, ‘the key with privacy is not to simply create a privacy policy, but rather one must use this policy to create trust, establish credibility, and enhance brand image.’

Hurley (2006) defines trust ‘as confident reliance on someone when you are in a position of vulnerability’. Since consumers put their personal data in the hands of the marketer, the consumer is vulnerable. Nah et al. (2003) counted trust in mobile technology as a primary factor affecting consumers’ intentions of using a mobile system for enjoyment, as represented by hedonic outcomes. Siau and Shen (2003) divided the trust concept of mobile commerce into two parts: toward the mobile information comprising mobile technology, and toward the mobile service vendor. Simultaneously, they suggested that at the early stage the trust of mobile technology plays a more important role than the trust of the mobile vendors. Mitchell et al. (2006) tells us, ‘the most significant damage from poor use of data lies in the damage done to consumer trust and confidence’

Many factors have been found to influence one’s ability to trust. Leveraging the work of Hurley (2006) and Chellappa and Sin (2005), a number of factors can be identified that may affect and contribute to trust between the marketer and consumer. These factors may be grouped into two primary clusters: Decision Maker and Situational.

Decision Maker factors include:

- **Risk Tolerance:** a personality factor that considers what is being put at risk if the trusted entity breaches the trust and what tolerance does the trustee have for this risk (Hurley, 2006).
- **Level of Adjustment:** a variable that determines how much time it takes a person to trust. Well adjusted people tend to be more

confident and trust, while poorly adjusted people see threats and distrust (Hurley, 2006).

- Past Experience: consumers will base their trust on past experiences with the brand or vendor (Chellappa and Sin, 2005).
- Relative Power: a variable that evaluates the power one individual or firm has over another (Hurley, 2006).

Situational factors (Hurley, 2006) include:

- Security: how secure do the parties feel within the relationship; that is are they comfortable with the relationship and do they not feel at risk of being violated.
- Number of similarities: how similar is a group's experiences to one's personal values and experience.
- Alignment of interest: are the interests between both parties aligned.
- Level of communication: the quality and amount of communication between the parties to help solidify trust.
- Capability: the demonstrable capability of the trusted party; the more capable the party, the higher the expectation of trust.
- Predictability and Integrity: we tend to trust those that are predictable and consistently demonstrate integrity.
- Benevolent concern: does the trusted party demonstrate concern for the trustee; and are they looking out for the trustee's best interests.

It is worth noting, however, that the consumer is not the only one vulnerable within the consumer–marketer relationship. Marketers are also at some risk, in that marketers that tarnish the trust they have built with a consumer may face a number of problems, including (Bloom et al., 1994; Fletcher, 2003; O'Malley et al., 1997):

- Irreparable damage to brand reputation and user retention levels
- Loss of revenue and new business
- Interruption of cross-border data flows
- Government enforcement actions
- Litigation from consumers and privacy advocates
- Civil and criminal penalties for wrongful disclosure

Trust is the cornerstone of relationships, including those between the customer and mobile marketer. Park and Yang (2006) found that mobile trust is a moderator of the perceived value of mobile use.

While those who have high levels of trust related to mobile technology tend to focus on the utilitarian or utility-based value of mobile technology, consumers with a low level of mobile trust tend to concentrate on the hedonic or pleasure-based value when creating their attitude toward mobile technology.

Mobile technology has highly relevant relationships with trust based on naturally caused uncertainty and with Internet skill or experience, because the basis of mobile technology is primarily the wireless Internet.

A key tool marketers have at their disposal to facilitate the management of trust between themselves and their customer is their privacy and preferences management programme, which can be used to set the ground rules for how they will interact with their customer and their collection and use of consumer PII and non-PII. The management of a privacy and preference management programme is not a simple issue, especially given the global nature of business today and the applicability of mobile marketing. Marketers must build their privacy and preferences programmes so that they are structured enough to be managed consistently, but flexible enough to allow local regulations, business practices and customs to sometimes dictate modification of the firm's privacy policy in order to accommodate a particular situation.

CONCEPTUAL MODEL

Studies have shown that marketing, and in particular mobile marketing, can be a very effective tool for generating high response rates, sales, brand awareness, and customer loyalty (Bauer et al., 2005; Enpocket, 2005; Kavassalis et al., 2003; Leppäniemi et al., 2006; Rettie et al., 2005). And, when consumers have trust in a brand or marketer they may be more inclined to engage in the marketer's programmes and share more of their PII to enrich the experience. The conceptual model in Figure 8.2 provides a visual representation of the proposed interaction between trust, privacy and preference management programmes, and consumer acceptance and participation in mobile marketing programmes.

This model is unique in that it is the first time these three constructs have been hypothesized to interact in such a detailed way, and it establishes a framework for future studies into the interactions between trust, mobile marketing, and consumer/brand identity management and its various elements. This model should help support the direction of future qualitative and quantitative research in the field of mobile marketing, and future research can help refine each construct and propose ways to operationalize each variable.

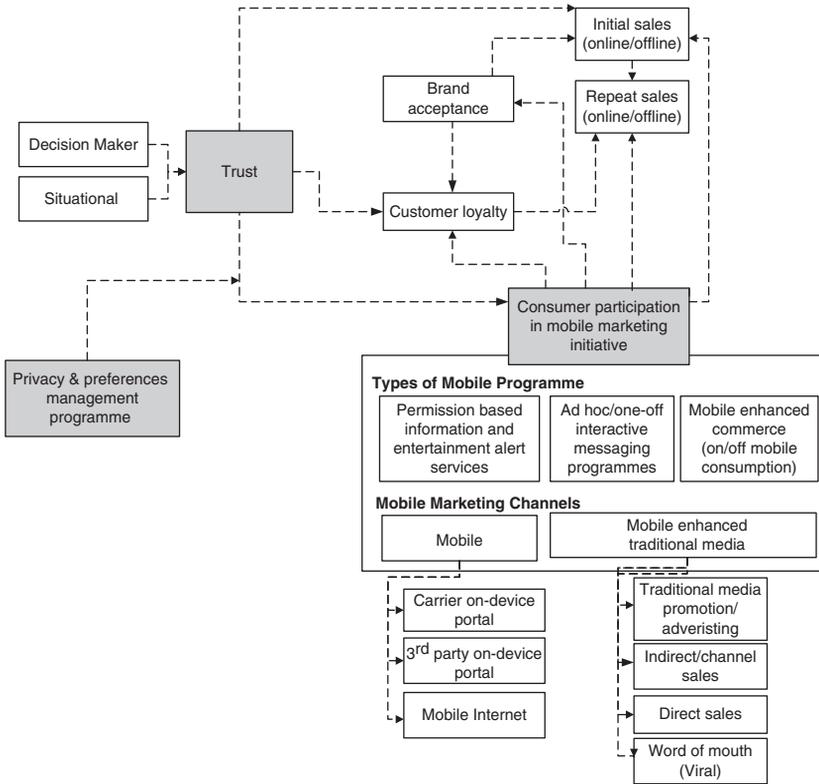


Figure 8.2 Conceptual model

CONCLUSIONS

This chapter may be used as a foundation for future research into the relationships between trust, privacy and consumer acceptance of and participation in mobile marketing initiatives. It is important for marketers to recognize that a relationship with a customer is not a static event, but an ongoing process. Mobile marketing, when properly used, can be an effective tool within the marketer's arsenal to nurture this relationship. Through mobile marketing practices marketers can entertain, inform, build brand awareness, create brand loyalty, and drive purchase decisions among their target consumers; however, to ensure continued success and long-term longevity of mobile marketing as a viable medium, consumer trust must be established and rigorously maintained.

REFERENCES

- Air2Web (2003), 'Permission based mobile marketing', *white paper*, available: <http://whitepapers.silicon.com/0,39024759,60061882p-39000656q,00.htm> (29 August 2004).
- Airwide Solutions (2006), '89% of major brands planning to market via mobile', http://www.airwidesolutions.com/news.asp?nav_id=2324&lang_id=E (11 May 2006).
- Barnes, S.J. and E. Scornavacca (2004), 'Mobile marketing: the role of permission and acceptance', *International Journal of Mobile Communications*, **2**, 128–39.
- Bauer, H.H., S.J. Barnes, T. Reichardt and M.M. Neumann (2005), 'Driving consumer acceptance of mobile marketing: a theoretical framework and empirical study', *Journal of Electronic Commerce Research*, **6**, 181–92.
- Becker, M. (2005), 'Effectiveness of mobile channel additions and a conceptual model detailing the interaction of influential variables' (Academic Review), retrieved from Mobile Marketing Association, 6 December.
- Bettman, J.R., M.F. Luce and J.W. Payne (1998), 'Constructive consumer choice processes', *Journal Of Consumer Research*, **25**, 187–217.
- Bloom, P., G. Milne and R. Adler (1994), 'Avoiding misuse of new information technologies: legal and societal considerations', *Journal of Marketing*, **58**, 98–110.
- Buckley, R. (2003), 'Mobile marketing – R U up 4 it?', *MarketingProfs.com*, 25 March, available: <http://www.marketingprofs.com/3/buckley1.asp> (11 October 2003).
- Byron, E. (2006), 'And now a word from . . .', *The Wall Street Journal* (New York), sec. The Journal Report: Leadership.
- Chellappa, R. and R. Sin (2005), 'Personalization versus privacy: an empirical examination of the online consumer's dilemma', *Information Technology and Management*, **6**, 181–202.
- Chowdhury, H., N. Parvin, C. Weitenberner and M. Becker (2006), 'Consumer attitudes toward mobile advertising in an emerging market: an empirical study', *International Journal of Mobile Marketing*, **1**, 33–42.
- CTIA (2006), 'Semi-annual wireless industry survey', *CTIA.org*, available: http://www.ctia.org/media/industry_info/index.cfm/AID/10316 (13 February 2007).
- Deighton, J. (2002), 'Market solutions to privacy problems?', *Working Papers 2002–2003*, Harvard Business School, Boston, MA.
- Deighton, J. (2004), 'The presentation of self in the information age', *Working Papers 2003–2004*, Harvard Business School, Boston, MA.
- Enpocket Mobile Media Monitor (2005), 'US reveals young adults value mobile more than traditional media', July, available: <http://www.enpocket.com/news/press-releases/enpocket-mobile-media-monitor-us-reveals-young-adults-value-mobile-more-than-traditional-media> (3 February 2007).
- Fish, T. (2007), 'Bothered 2.0! OpenGardens.com', May, available: http://opengardensblog.futuretext.com/archives/2007/05/bothered_20_by_tony_fish.htm (13 June 2007).
- Fletcher, K. (2003), 'Consumer power and privacy: the changing nature of CRM', *International Journal of Advertising*, **22**, 249–72.
- Funk, M. and I. Ayres (2002), 'Marketing privacy: a solution for the blight of telemarketing (and spam and junk mail)', *Working Paper Series*, Social Science Research Network, available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=303303 (15 February 2006).

- Gauntt, J. (2007), 'Mobile marketing and advertising', *eMarketer.com*, available: http://www.emarketer.com/Report.aspx?code=em_ad_mobile_jan07 (23 January 2007).
- Godin, S. (1999), *Permission Marketing*, New York: Simon & Schuster.
- Hanley, M. and M. Becker (2007), 'Cell phone usage and advertising acceptance among college students: a two-year analysis', Unpublished manuscript.
- Hanley, M., M. Becker and J. Martinsen (2006), 'Factors influencing mobile advertising acceptance: will incentives motivate college students to accept mobile advertisements?', *International Journal of Mobile Marketing*, **1**, 50–58.
- Hanley, M., J. Martinsen and L. Pryor (2005), 'College cell phone advertising survey', Ball State University, Unpublished manuscript.
- Hann, H.-H., K.-L. Hui and T.P. Lee (2005), *Consumer Privacy and Marketing Avoidance*. University of Southern California.
- Hodgman, W. (2006), 'Mobile broadband and mobile advertising: the opportunity is now', paper presented at the Mobile Broadband Americas Conference, Las Vegas, October.
- Hogarth, R. (1980), *Judgement and Choice: The Psychology of Decision*, New York: Wiley.
- Hogarth, R. (1987), *Judgement and Choice: The Psychology of Decision*, New York: Wiley.
- Hurley, R. (2006), 'The decision to trust', *Harvard Business Review*, September, pp. 55–62.
- iLoop Mobile, Inc. (2007), 'Mobile Privacy Statement', www.iloopmobile.com.
- iSuppli (2007), 'Mobile enablement platform content market to grow to \$7.4 Billion by 2011', iSuppli.com, March, available: <http://www.isuppli.com/news/default.asp?id=7610> (13 May 2007).
- Johnson, E.J., S. Bellman and G. Lohse (2002), 'Defaults, framing and privacy: why opting in does not equal opting out', *Marketing Letters*, February, p. 5.
- Karnell, J. (2005), 'Mobile marketing primer', February, available: <http://www.onetooneinteractive.com/resource/whitepapers/0010.html> (25 March 2006).
- Kavassalis, P., N. Spyropoulou, D. Drossos, E.G. Mitrokostas, G. Gikas and A. Hatzistamatiou (2003), 'Mobile permission marketing: framing the market inquiry', *International Journal of Electronic Commerce*, **8**, 55–79.
- Koskinen, I., P. Repo and K. Hyvönen (2006), 'WAP and accountability: shortcomings of the mobile Internet as an interactional problem', *Journal of Usability Studies*, **2**, 22–38.
- Leppäniemi, M., J. Sinisalo and H. Karjaluoto (2006), 'A review of mobile marketing research', *International Journal of Mobile Marketing*, **1**, 30–42.
- Loyle, D. (2006), 'Privacy under scrutiny', available: <http://www.targetonline.com> (9 August 2006).
- Marriott, L. (2006), 'Mobile marketing: an agency perspective', available: http://www.clickz.com/showPage.html?page=clickz_print&id=3622971 (28 July 2006).
- mBlox (2005), 'US premium SMS frequently asked questions: carrier campaign requirements', <http://emexus.com/Corp/page/download/requestdownload/15> (14 January 2006).
- McLuhan, M. and Q. Fiore (1967), *The Medium is the Message: An Inventory of Effects*, New York: Bantam.
- Milne, G.R. and M.-E. Boza (1999), 'Trust and concern in consumers' perceptions of marketing information management practices', *Journal of Interactive Marketing*, **13**, 5–19.

- Mitchell A., I. Henderson and J. McKean (2006), 'A fundamental question', *The Buyer Centric Commerce Forum*, London.
- MMA Glossary (2006), available: <http://mmaglobal.com/modules/content/index.php?id=6> (25 November 2006).
- Mobile Marketing Association (2005), 'Mobile marketing effectiveness study – attitudes & usage (phase one)', <http://mmaglobal.com/modules/article/view.article.php/1035> (25 January 2006).
- Mobile Marketing Association (2006), '2006 mobile attitude & usage study', available: <http://mmaglobal.com/modules/article/view.article.php/1076> (2 February 2007).
- Nah, F.F.-H., F. Zhao and W. Zhu (2003), 'Factors influencing users' adoption of mobile computing', in J. Mariga (ed.), *Managing E-Commerce and Mobile Computing Technologies Book*, Hershey, PA: Idea Group Inc., pp. 260–71.
- O'Malley, L., M. Patterson and M. Evans (1997), 'Intimacy or intrusion? The privacy dilemma for relationship marketing in consumer marketers', *Journal of Marketing Management*, **13**, 541–99.
- Park, J. and S. Yang (2006), 'The moderating role of consumer trust and experiences: value driven usage of mobile technology', *International Journal of Mobile Marketing*, **1**, 24–32.
- Phelps, J., G. Nowak and E. Ferrell (2000), 'Privacy concerns and consumer willingness to provide personal information', *Journal of Public Policy & Marketing*, **19**, 27–41.
- Purdy, G. (2006), 'Mobile IM: the next big opportunity in real-time mobile applications', *white paper*, Neustar.biz, available: <http://www.neustar.biz/pressroom/whitepapers/index.cfm> (24 January 2007).
- Rettie, R., U. Grandcolas and B. Deakins (2005), 'Text message advertising: dramatic effect on purchase intention', Kingston University & BT, <http://www.umgueadvertisingstrategies.com/casestudy.htm> (16 June 2008).
- Roussos, G., D. Peterson and U. Patel (2003), 'Mobile identity management: an enacted view', *International Journal of Electronic Commerce*, **8**, 81–100.
- Salls, M. and S. Silverthorne (2003), 'Should you sell your digital privacy?', Interview with John Deighton, *Working Knowledge For Business Leaders*, Harvard Business School, Boston, MA (25 August 2003).
- Shosteck Group, The (2006), 'Two sides to every story: is mobile advertising good for mobile?', http://www.shosteck.com/?page_id=44 (30 June 2006).
- Siau, K. and Z. Shen (2003), 'Building customer trust in mobile commerce', *Communications of the ACM*, **46**, 91–4.
- SkyGo (2001), 'Ideas & strategies for implementing mobile marketing', *white paper*, available: <http://www.e-consultancy.com/knowledge/whitepapers/521/ideas-strategies-for-implementing-mobile-marketing.html> (23 September 2007).
- Swilley, E. and C.F. Hofacker (2006), 'Defining mobile commerce in a marketing context', *International Journal of Mobile Marketing*, **1**, 18–23.
- Tetlock, P.E. (1992), 'The impact of accountability on judgment and choice: toward a social contingency model', in M. Zanna (ed.), *Advances in Experimental Social Psychology*, **25**, New York: Academic Press, pp. 331–76.
- Tversky, A. and E. Shafir (1992), 'The disjunction effect in choice under uncertainty', *Psychological Science*, **3**, 305–09.
- Zavagno, M. (2004), 'The year for wireless marketing', February, available: <http://www.marketingprofs.com/4/zavagno1.asp> (26 February 2004).

9. Assessing the effects of trust on mobile advertising campaigns: the Japanese case

Shintaro Okazaki

INTRODUCTION

The new media of the Internet-enabled multi-function mobile phone have revolutionized many aspects of contemporary marketing. The shift from conventional PC Internet to wireless Internet has enabled consumers to stay connected online, regardless of time and place. As more and more firms adopt mobile communication as a quick and spontaneous response tool, an increasing number of promotional messages are sent to users who have granted prior consent or permission. For example, global brands, such as Adidas, Volvo and Dove, have adopted text messaging in their promotional campaigns (Sultan and Rohm, 2005). Such permission-based mobile marketing fits the spirit of customer relationship management, because its value-added content can be personalized with context and location specificity.

Customer relationship management is a business strategy designed to identify and maximize customer value, and it requires a customer-centric business philosophy and culture (Spiller and Baier, 2005). It begins with prospecting for new customers with timely information at the right place, to foster top-of-mind brand awareness. These characteristics match those of the mobile phone: a highly portable communication device with ubiquitous data transmission capability. Because of this unique nature, this device quickly attracts consumers' attention, while stimulating spontaneous information exchange. However, prior research in mobile advertising has left one important question still unanswered: do consumers trust the message and the advertised brand?

Trust plays an important role in many social and economic interactions, including electronic commerce (Wingreen and Baglione, 2005). In an online environment, trust is crucial because it affects a number of psychological factors, especially security and privacy. In a context of mobile advertising,

the relationship between emitters and receptors is episodic and unforeseeable, while advertised goods or services are not physically available. Because of this uncertainty, firms must develop a trustworthy relationship to foster customer acceptance.

Our primary objective is to address the role of trust in mobile advertising acceptance. Specifically, the study attempts to explore how trust affects consumers' attitudes toward the ad and the advertised brand. In doing so, an empirical study of mobile advertising campaigns is conducted by transmitting 'pseudo' mobile ads of popular Japanese brands. The respondents are randomly chosen from the firm's opt-in users. One week after sending the ads, we sent a structured questionnaire to the same users with an attempt to examine their level of acceptance. The study set out to examine four primary constructs: trust in mobile advertising, trust in the brand, attitude toward the ad, and attitude toward the advertised brand.

In what follows, we first provide an overview of our research domain on mobile advertising research, and then establish the theoretical framework of the study. On this base, a research model and hypotheses are proposed. A detailed explanation of the methodology follows. After presenting the study results in detail, we discuss the implications of the study, while recognizing important limitations.

RESEARCH DOMAIN: MOBILE ADVERTISING RESEARCH

Interests in the effectiveness of mobile-based campaigns have begun to swell. The first published study of mobile advertising was conducted by Barwise and Strong (2002). They examined consumers' perceptions on a trial of permission-based SMS message advertising in the UK. On recruitment, respondents were paid cash incentives and received more than 100 messages in the six-week trial period. Almost all respondents were satisfied or very satisfied. The study found that 81 per cent read all messages, 63 per cent responded or took action, and 17 per cent forwarded at least one message. Surprisingly, as many as 84 per cent of respondents were likely to recommend the service to their friends, whereas only 7 per cent were likely to abandon the service.

Rettie et al. (2005) conducted a study based on 'real' mobile advertising campaigns that took place between October 2001 and January 2002. In total, the researchers conducted 5401 telephone interviews regarding 26 different campaigns and found that the overall acceptability of SMS advertising was 44 per cent, with an average response rate of 31 per cent – much higher than email marketing. Acceptability was also significantly correlated

with campaign interest, campaign relevance and monetary incentives. Similarly, sporadic industry surveys report a rather optimistic blueprint.

In contrast, a study conducted by Tsang et al. (2004) reveals more realistic attitudes toward mobile advertising among Taiwanese. Their structural model included both high-involvement and experiential factors affecting consumers' attitudes toward permission-based SMS advertising. Surprisingly, it was found that (1) consumers generally have negative attitudes toward mobile advertising unless they have already been informed and have consented (that is, opted-in) to the ads; and (2) there seems to be a direct and positive relationship between consumers' attitudes and behaviour. The authors noted further that a consumer's intention to accept mobile ads is affected by incentives. The use of sophisticated statistical analysis distinguishes this study from other empirical studies carried out in recent years.

Much less attention has been paid to web-based 'pull' advertising. Okazaki (2004) examined the factors influencing consumers' motives to click text banner ads in the i-mode mobile advertising platform known as 'Tokusuru Menu'. This platform is included in an official i-mode menu, which enables subscribers to freely access the promotional information delivered by various companies. He found that three constructs – content credibility, infotainment and irritation – affected the formation of attitudes toward wireless ads, which in turn determined the level of intention to click the ads. Interestingly, the demographic analysis revealed that the unmarried working youth segment has a higher propensity to access such pull mobile ads.

More recently, research tends to focus on mobile commerce, rather than advertising itself, and a series of studies tested the 'revised' technology acceptance model (Wu and Wang, 2005), customer loyalty (Lin and Wang, 2006), and user satisfaction (Wang and Liao, 2006). Still, new insights into mobile advertising have been offered in terms of the extended theory of planned behaviour (Karjaluoto and Alatalo, 2007) and cross-media strategy issue (Trappey III and Woodside, 2005).

THEORETICAL FOUNDATIONS

Trust in Interactive Advertising

Consumer trust in electronic commerce has received considerable attention from both academics and practitioners. In terms of interactive advertising research, the relevance and credibility of ads have traditionally been considered important mediators of advertising effects (Andersson and Nilsson, 2000). Compared with an offline environment, trust is even more

important in an online environment, where consumers must make decisions or take action under conditions of great uncertainty, without any physical location to visit or a product to touch (Gefen et al., 2003; Wingreen and Baglione, 2005). Trust can be seen as consumer feedback, reflecting individuals' determination of whether uncertainty is reduced and expectations of opportunistic behaviour are ensured (Pavlou and Gefen, 2004).

Furthermore, on the Internet, it is even more difficult to distinguish between more and less trustworthy information because, as is not the case with traditional media, much of the content of online information is not subject to governmental or ethical regulation (Eastin, 2001). In this light, Hoffman et al. (1999) claim that a fundamental mistrust between customers and online business lends support to the view of some dislocation between brand identity and brand experience. This lack of faith in the unregulated flow of information presents a similar problem for those seeking information via mobile devices.

In this vein, Sadeh (2002) points out that the success factors associated with the i-mode m-commerce portal are precursors of future Internet business models, in which value will be created through convenience, ease of use, and compelling content that users will be willing to pay for. Mobile users are likely to choose to open mobile ads out of curiosity, but they must then decide whether to further access mobile campaign sites. Such a decision must be made mainly on the basis of trust in the ad and in the advertised brand. Therefore, trust should be conceptualized as two different constructs, brand trust and mobile advertising trust, which affect users' choice to open push mobile advertising. The users are likely to do so only when they perceive both the medium and the content to be non-deceptive and trustworthy.

Mylonopoulos and Doukidis (2003) argue that mobile advertising via email or SMS is effective in enhancing brand awareness and customer loyalty. Hence, there is strong evidence that many firms actually use mobile advertising for branding purposes. Okazaki (2005) interviewed 53 senior executives of multinationals operating in European markets and found that the creation and enhancement of brands are the most important motives for multinational corporations to adopt mobile advertising in international markets. This is consistent with Sultan and Rohm (2005), who argue, 'Mobile marketing creates new opportunities for companies to form or shift consumer attitudes toward a brand through the use of value-added content' (p. 85).

There is evidence that a growing number of firms actually use mobile advertising in brand promotion. For example, McDonald's offers three different types of mobile coupons on three different platforms, from the basic text-only SMS version to the graphically rich version – that is, fully traceable

and redeemable, all without any POS hardware or software requirements (iMedia Connection, 2005a). DreamWorks Home Entertainment used a viral campaign for the DVD of the film *The Ring 2* that operated on mobile phones and email accounts. Visitors to the campaign site were invited to 'scare their friends' by entering their email address and mobile telephone number. The site then sent them an email, inviting them to click on a link and watch the video (iMedia Connection, 2005b). Adidas enables consumers to download popular athletes' photos on a mobile site and digitally superimpose their own photos on those images (Sultan and Rohm, 2005). In Japan, Kirin MC Danon Waters Co. has launched a campaign for Volvic mineral water in which consumers enter a sweepstake contest in mobile phones with a bottle serial number (Senden Kaigi, 2004). P&G sends a sample of Pantene brand shampoo to users who respond to pull mobile advertising in i-mode (Senden Kaigi, 2004). However, the success of these branding examples appears to depend on the distance between brand identity and brand reputation (Lee and Turban, 2001). That is, the more consumers trust the brand, the smaller the difference between what firms intend to establish and what consumers identify with the brand (Jevons and Gabbott, 2000). Hence, the role trust plays in mobile campaigns is crucial in obtaining effective consumer responses.

Attitudes Toward the Ad and the Brand

An attitude toward an object can be defined as an individual's internal evaluation of it on the basis of his or her beliefs (Fishbein and Ajzen, 1975). In other words, beliefs determine the basic form of the attitude, which in turn triggers behavioural intentions (Davis, 1993). Thus, exposure to an advertising message for a specific product first influences one's beliefs, which then mediate the attitude toward the product. Subsequently, behavioural intention is formed as a consequence of this attitude formation (Fishbein and Ajzen, 1975).

A mobile advertisement can be seen as a marketing stimulus in an interaction between an advertiser and a consumer that is mediated by mobile Internet communication. The level of exposure to mobile devices varies according to consumers' needs and wants, but it is likely that they have formed favourable or unfavourable attitudes, irrespective of their prior knowledge (Lu et al., 2003). Research suggests that when consumers perceive a higher level of credibility in the ad, they are more likely to form more positive attitudes toward the ad (MacKenzie and Lutz, 1989). A company's ultimate goal of mobile advertising, however, should not be the formation of favourable attitudes toward the ad, but the formulation of an attitude toward the advertised brand.

In this vein, Delgado and Munuera (2001) have pointed out that trust is one of the most important factors affecting the creation of brand value. The literature has long neglected the importance of 'brand trust', despite empirical and theoretical evidence (Hess, 1995; Selnes, 1998), but researchers have become increasingly interested in establishing interactions between a consumer and a brand as a long-term relationship (Delgado and Munuera, 2001). Other research views trust as a determining factor in developing positive or favourable attitudes, resulting in a commitment to a certain brand as the maximum expression of a successful relationship between it and the consumer (Fournier, 1998). Moreover, trust leading to favourable attitudes could, in turn, influence the intention to engage in repeat purchases in Internet commerce (Gefen et al., 2003; Kim and Benbasat, 2003), including m-commerce (Lin and Wang, 2006).

RESEARCH MODEL AND HYPOTHESES

Figure 9.1 shows our research model, which is essentially based on MacKenzie and Lutz's (1989) core attitudinal model. They proposed and tested structural antecedents of attitude toward the ad and the brand, incorporating the role of advertising credibility. In our model, the credibility construct is replaced with trust, which is divided into two parts: trust in mobile advertising and trust in the brand. Both types of trust are hypothesized to affect positively favourable attitudes toward the ad.

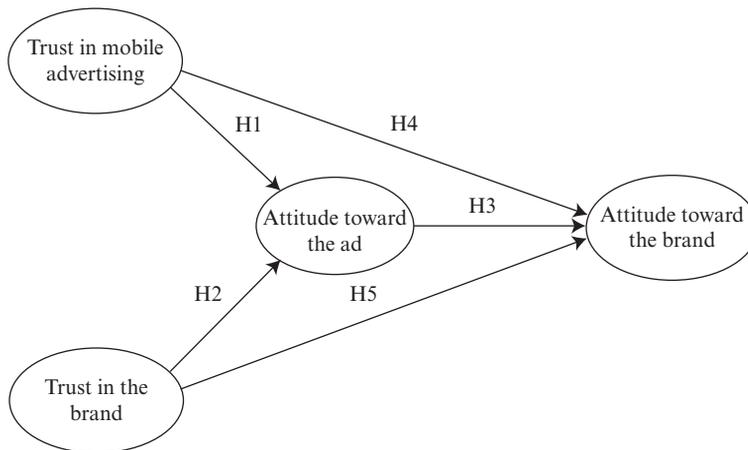


Figure 9.1 Research model

Based on the preceding discussion, we posit trust as a structural antecedent of attitudes toward the ad, which in turn determines attitudes toward the brand. Thus, the following hypotheses are contemplated:

H1: Trust in mobile advertising directly and positively affects attitudes toward the ad.

H2: Trust in the brand directly and positively affects attitudes toward the ad.

In the light of Mackenzie and Lutz (1989), the attitude toward the ad serves as a primary determinant of the attitude toward the brand. Thus:

H3: The attitude toward the ad directly and positively affects the attitude toward the brand.

At the same time, we posit that the attitude toward the ad would act as a mediating variable in linking both trust variables and the attitude toward the brand. That is, we posit the direct effects from the trust variables to the attitude toward the brand, while the indirect effects are recognized as mediating effects of attitudes toward the ad. This suggests the following and final hypotheses:

H4: Trust in mobile advertising directly and positively affects attitudes toward the brand.

H5: Trust in the brand directly and positively affects attitudes toward the brand.

Finally, the literature suggests that the level of product involvement has an important influence in trust and attitude formation. Thus, the following research question is suggested:

RQ: Are there any differences in the model effects between high-involvement and low-involvement products?

METHOD

Research Stimulus

This study was organized into two phases: (1) transmission of the pseudo mobile campaign, and (2) questionnaire survey via mobile device. In the

first phase, we sent mobile ads that contained pseudo-campaign messages with hyperlinks to access further campaign information on the mobile site. D2 Communications (2005), the largest mobile advertising agency in Japan, collaborated in this study by creating the pseudo ads. It offered its 'Message F', a push service that delivers textual and visual information from advertisers to opt-in users only. This service has been successfully used as a campaign tool by many firms, such as P&G, Sapporo Beer and Panasonic (Senden Kaigi, 2004).

Two large Japanese manufacturers, both listed in the first section of the Tokyo Stock Exchange, agreed to collaborate in the experiment and allow us to use their most popular brands as real stimuli in the campaign. One company manufactures sophisticated portable audio players (that is, high-involvement products), whereas the other makes puffed corn snacks (that is, low-involvement products). Both brands are firmly established in the Japanese market. After designing textual and visual information for the mobile ads, we created a promotional mobile site to which respondents could jump by clicking a banner saying 'Please click here for further information' in the ads. Again, as an incentive to participate in the campaign, we offered a free ring-tone and a present (a book coupon).

Research Instrument

The second phase took place approximately one week after that transmission, in which we contacted the customers by sending another mobile message containing a structured questionnaire that asked for their impressions and perceptions of mobile campaigns. As an incentive, we offered free ring-tone and screen-image downloads. The questionnaire consisted of two parts. In the first, we asked questions about the respondent's demographic information, such as gender, age and occupation using a categorical scale. Respondents were asked to tick the appropriate box to indicate their answer. In the second part, we included questions that corresponded to the four constructs: trust in mobile advertising, trust in the (advertised) brand, attitude toward the ad, and attitude toward the (advertised) brand. The majority of the scale items were adopted from existent e-commerce literature and modified into a mobile context. All constructs were assessed using a multiple-item measure of five-point semantic differential scales, with 3 ('cannot answer/determine') as an anchoring point.

Respondents' Characteristics

For each product, a total of 40 000 campaign messages were sent to the opt-in users, who were randomly chosen from the firm's customer database that

covers Tokyo Metropolitan District and three nearby prefectures. We received 1335 usable responses for the high-involvement product and 1899 for the low-involvement product, which made the response rate, based on the total clicks, approximately 19.6 and 35.5 per cent, respectively.

Generally speaking, the respondents of both samples exhibited very similar characteristics (Table 9.1). The proportion of female respondents outweighed their male counterparts, while the differences across the samples were not statistically significant ($p = 0.423$). Neither did the occupational patterns differ across the samples ($p = 0.071$). However, for age, a chi-square test detected significant differences between the two brands ($p = 0.004$). Participants under 19 years old responded more for the high-involvement product, while those between 30 and 34 years old responded more for the low-involvement product. Although the sample was not stratified according to age, it was somewhat expected to receive a 'reasonable' number of responses from older age groups. However, our results were consistent with prior research in that people over 40 years old rarely replied to our survey invitations.

Table 9.1 Characteristics of the respondents (%)

	High-involvement Product (N = 1335)	Low-involvement product (N = 1899)
Gender		
Male	43.6	42.2
Female	56.4	57.8
Age		
>19 years old	29.2	25.6
20–29	47.5	44.8
30–39	22.8	29.1
40 years old <	.4	.4
Occupation		
Junior high/high school	17.2	14.4
University	18.1	16.0
Clerical/research	10.4	9.8
Administrative	10.9	10.3
Sales/service	19.1	20.9
Managerial	1.9	1.7
Skilled professional	9.2	10.7
Self-employed	.4	.9
Housewives	6.4	7.8
Unemployed	6.3	7.5

RESULTS

Analysis Procedure

The proposed model and its associated hypotheses were tested using partial least square (PLS). PLS was preferred over covariance-based structural equation modelling, because it uses a least-squares estimation procedure, thereby avoiding many of the restrictive assumptions such as multivariate normality and residual distributions (Chin, 1998). In addition, PLS is more appropriate for this study because it is primarily intended for predictive analysis in which (1) the problems explored are complex; and (2) there is a considerable knowledge gap between the research topic and existent literature. Essentially, this is one of the first academic studies that uses 'real' mobile campaign stimuli since the first empirical research on mobile advertising in 2002 (Barwise and Strong, 2002), while the effect of trust on the ad and the advertised brand has seldom been studied in the past. For these reasons, we decided to employ the PLS technique.

Measurement Model Assessment

Chin (2000) recommends that a model based on PLS should be analysed in two stages of assessment: the measurement model and the structural model. First, the measurement model consists of the relationships between the constructs and the indicators used to measure them. This involves the assessment of reliability, and convergent and discriminant validity. The bootstrap sampling procedure was used to test the magnitude and significance of the loadings (Chin, 2001). Unlike structural equation modelling, PLS produces no specific fit index. Instead, the model fit is analysed by examining the loadings of the items with their respective constructs. This procedure was repeated separately for each model: high-involvement product (hereafter, model 1) and low-involvement product (model 2). Tables 9.2 and 9.3 summarize the results.

After the first run of bootstrap sampling, all the items loaded significantly and directly onto the respective constructs. As clearly seen in Tables 9.2 and 9.3, all the loadings exceeded 0.7, and all the loadings were statistically significant at $p < 0.001$ in both models. Therefore, the individual item reliability was thus considered to be sufficiently established for both models 1 and 2.

Next, we assessed construct reliability by calculating the composite reliability (CR), which is considered superior to Cronbach's alpha (Hair et al., 2006). All the scores exceeded a generally recommended benchmark of 0.70 in both models: ranging from 0.64 to 0.93 in model 1, and from 0.68 to 0.92

Table 9.2 Loadings, construct reliability and convergent validity for model 1 (high-involvement product)

Constructs/ Indicators	Standardized loadings	Standard error	<i>t</i> -statistics	Composite reliability	Average variance extracted
Trust in mobile advertising				0.92	0.84
– TIMA 1	0.93	0.02	41.73***		
– TIMA 2	0.91	0.03	31.01***		
Trust in the brand				0.86	0.74
– TIB 1	0.88	0.04	24.65***		
– TIB 2	0.86	0.04	22.13***		
Attitude toward the ad				0.83	0.56
– ATTA 1	0.73	0.08	9.74***		
– ATTA 2	0.78	0.06	12.42***		
– ATTA 3	0.81	0.05	16.36***		
– ATTA 4	0.64	0.08	7.60***		
Attitude toward the brand				0.82	0.60
– ATTB 1	0.78	0.06	13.52***		
– ATTB 2	0.75	0.06	11.63***		
– ATTB 3	0.80	0.05	14.68***		

Note: *** $p < 0.001$ (based on two-tailed test)

in model 2. Convergent and discriminant validity was assessed by comparing the square root of the average variance extracted (AVE) with the latent constructs' correlations. If measures of a construct differ substantially from measures of neighbouring constructs, then the square root of AVE should be larger than 0.70, while exceeding the construct's correlations with other constructs. As Tables 9.2 and 9.3 show, all the latent constructs met this condition in both models.

Structural Model Assessment

The structural model was assessed separately for high-involvement product and low-involvement product, by examining the paths' coefficients, and the variance explained (R-squared) in the endogenous variables. Following Chin's (1998) recommendation, bootstrapping with 500 sub-samples was performed to test the statistical significance of each path coefficient, using *t*-tests. To complement the analysis of path coefficients, the variance

Table 9.3 Loadings, construct reliability and convergent validity for model 2 (low-involvement product)

Constructs/ Indicators	Standardized loadings	Standard error	t-statistics	Composite reliability	Average variance extracted
Trust in mobile advertising				0.86	0.76
– TIMA 1	0.92	0.04	25.13***		
– TIMA 2	0.82	0.07	12.41***		
Trust in the brand				0.87	0.76
– TIB 1	0.87	0.04	24.17***		
– TIB 2	0.88	0.03	26.74***		
Attitude toward the ad				0.80	0.51
– ATTA 1	0.72	0.07	10.01***		
– ATTA 2	0.70	0.12	5.63***		
– ATTA 3	0.75	0.11	6.70***		
– ATTA 4	0.68	0.09	7.81***		
Attitude toward the brand				0.82	0.60
– ATTB 1	0.79	0.05	16.44***		
– ATTB 2	0.76	0.07	11.28***		
– ATTB 3	0.77	0.06	13.65***		

Note: *** p < 0.001 (based on two-tailed test)

Table 9.4 R-squared

Constructs	Model 1 (High-involvement product)	Model 2 (Low-involvement product)
Attitude toward the ad	0.31	0.30
Attitude toward the brand	0.44	0.45

explained (R-squared) in the endogenous variables (that is, attitude toward the ad and attitude toward the brand) was calculated as indicators of a model's performance (Table 9.4). In both models, the size of R-squared was fairly modest for both attitude toward the ad and attitude toward the brand.

The coefficients, standard errors, and t-values of the two models (that is, the high-involvement product model and the low-involvement product model) are shown in Table 9.5. For both types of product, all the paths were

Table 9.5 Structural model results

Hypotheses	Paths	Model 1 (High-involvement product)		Model 2 (Low-involvement product)		t-value
		Standardized β	Standard error	Standardized β	Standard error	
H1	Trust in mobile advertising → Attitude toward the ad	0.43***	0.08	0.37**	0.10	25.44***
H2	Trust in the brand → Attitude toward the ad	0.25*	0.08	0.29*	0.11	-16.96***
H3	Attitude toward the ad → Attitude toward the brand	0.26*	0.10	0.25*	0.10	3.39***
H4	Trust in mobile advertising → Attitude toward the brand	-0.04	0.09	0.01	0.09	n.a.
H5	Trust in the brand → Attitude toward the brand	0.54***	0.08	0.53***	0.08	4.24***

Notes:
 *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (based on two-tailed test), n.s. = non-significant (based on one-tailed test), n.a. = not applicable.
 The t-value was calculated according to the procedure suggested by Chin (2000).

statistically significant, except one: the path from trust in mobile advertising to attitude toward the brand.

In H1, we posit that trust in mobile advertising will directly and positively affect attitude toward the ad. Our data corroborate our proposition, and the effect is reasonably solid: 0.43 and 0.37 for models 1 and 2, respectively. Therefore, H1 was supported. Next, H2 posits a direct and positive effect of trust in the brand on attitude toward the ad. The standardized coefficients are marginally significant in both models. H2 was thus supported. Similarly, as hypothesized in H3, the path from attitude toward the ad to attitude toward the brand was significant but with modest effects for both models. This rings true to H3.

H4 contemplates the direct and positive relationship between trust in mobile advertising and attitude toward the brand. In this regard, the two models exhibit different results. In model 1, the effect was negative, while in model 2, the effect was positive. However, both coefficients were statistically non-significant. This leads us to conclude that H4 was rejected by our data. Finally, H5 addresses the path from trust in the brand to attitude toward the brand. This effect was the strongest among the paths. In both models, the effect exceeds 0.50, while being statistically significant. Therefore, H5 was supported.

Mediation of Attitude Toward the Ad

Mediation represents an intervening relationship where the presence or absence of a variable influences the relationship between one or more independent variables and a dependent variable. Our model implicitly assumes the mediating role of attitude towards an ad for the effects of trust in mobile advertising and trust in the brand on attitude toward the brand.

To test this mediation, we followed the procedure recommended by Baron and Kenny (1986). Specifically, the following conditions were examined: (1) the predictor variable (trust) must affect the mediator (attitude toward the ad) in the predicted direction (positive); (2) the mediator (attitude toward the ad) must affect the dependent variable (attitude toward the brand) in the predicted direction (positive); (3) the predictor variable (trust) must affect the dependent variable (attitude toward the brand) in the predicted direction (negative); and (4) the impact or effect of the predictor (trust) on the dependent variable (attitude toward the brand) must not be significant (full mediation) or reduced (partial mediation) after controlling for the mediator (attitude toward the ad).

With regard to trust in mobile advertising, the third condition was not met in either model 1 or 2, because the path from trust in mobile advertising to

attitude toward the brand was not statistically significant. Therefore, there is no mediating effect of attitude toward the ad for trust in mobile advertising in general. Next, as for trust in the brand, we found that the first three conditions are largely satisfied in both models. However, the fourth condition is satisfied in neither model 1 nor 2, because the effect of trust in the brand on attitude toward the brand was neither non-significant nor reduced when controlling the mediator.

Multi-group Analysis

Finally, the statistical comparison between two models was performed, according to the procedures suggested by Chin (2000). The following equations were used to calculate t-values, and their significance was examined to reveal whether any statistical differences existed between the two models:

$$t = \frac{\beta_{High} - \beta_{Low}}{S_p \times \sqrt{\frac{1}{m} + \frac{1}{n}}} \quad (9.1)$$

$$S_p = \sqrt{\frac{(m-1)}{(m+n-2)} \times SE_{High}^2 + \frac{(n-1)}{(m+n-2)} \times SE_{Low}^2} \quad (9.2)$$

Here, m and n represent the sample size of model 1 and model 2, respectively, while SE stands for the standard error of path in the structural model. The results, shown in Table 9.5, indicate that the majority of the path estimates between the two models differ significantly. Please note that this equation takes into account the sample size as an important factor of effect difference.

To our surprise, trust in mobile advertising affects attitude toward the ad more strongly in model 1 than in model 2, in that the difference in the coefficients between the two models was statistically significant at $p < 0.001$. This indicates that the mobile campaign promoting a high-involvement product produced a stronger positive influence of trust in mobile advertising on the attitude toward the ad. On the other hand, the opposite pattern was observed in H2. Trust in the brand affects the attitude toward the ad more strongly in model 2 than in model 1. The difference was statistically different, indicating that the mobile campaign promoting a low-involvement product produced a stronger positive effect of trust in the brand on attitudes toward the ad. With regard to H3 and H5, the effects were stronger in model 1 than in model 2.

Limitations

To make our following discussions more objective, a few limitations should be recognized. First, this is basically an exploratory study in nature with a limited number of constructs. Our research model is rather basic, and consists of only trust and attitudinal factors. Future research should expand this framework by including more complex issues, such as perceived risk, intrinsic and extrinsic gratifiers, and personal values, among others. Second, we examined only two types of products, that is, high-involvement product and low-involvement product, and the results should by no means be over-generalized. Last, while the sample size was large, the final response rate was limited. We believe that the response rate based on the click-through rate was reasonably justifiable. However, more efforts should be made in the future to increase the response rate by improving the questionnaire format, response interface, and incentive systems.

IMPLICATIONS

This study aims to address a fundamental question in contemporary mobile-based advertising campaigns: whether and how trust affects consumers' attitudes toward the ad and toward the advertised brand. We proposed and tested a research model by conducting a survey via mobile messaging with two different product types: high-involvement product (portable audio players) and low-involvement product (puffed corn snacks).

Our findings provide several important implications to the existent literature on mobile advertising research. First, our data demonstrate that trust in mobile advertising and in the brand both directly and positively affect attitude toward the ad, which in turn determines attitude toward the brand. This appears to be indicative that, even if consumers do not trust the advertised brand itself, if consumers consider mobile advertising to be trustworthy and relevant to their interest, they tend to form a favourable attitude toward the ad, and subsequently, attitude toward the brand. This finding seems to corroborate prior research, in that mobile advertising is indeed effective in brand promotion in terms of the attitude formation. This especially rings true when we take into account a fact that the magnitude of R-squared for attitude toward the brand was reasonably robust for both the high-involvement product (0.44) and the low-involvement product (0.45).

Second, our mediation analysis indicates that attitude toward the ad does not mediate the effects of either trust in mobile advertising or trust in the brand. On the one hand, it is surprising that the formation of attitude toward the ad hardly intervenes in the relationship between trust and attitude toward

the brand. This may be due to the limited capacity of mobile advertising, in that small letters and visuals on a micro-browser screen may not foster much attention as 'advertising'. On the other hand, due to this limited capacity of mobile devices, the role of trust may be even greater in mobile advertising than in, for example, Internet advertising, surpassing the mediating power of attitude toward the ad. As a result, it acts as a direct determinant of attitudes toward the brand. Although improving attitudes toward the brand is the ultimate goal of a firm's campaign, more effort should be made to enhance the formation of favourable attitudes toward the ad.

Third, there are important differences in the model effects between the high-involvement and low-involvement product. In particular, the effect of trust in the brand on attitude toward the ad was significantly greater on the low-involvement product than on the high-involvement product. In addition, it should be noted that, while the coefficient of the path from trust in mobile advertising to attitude toward the brand was not statistically significant, the effect was negative in the high-involvement product.

Taken together, these results appear to indicate, at least indirectly, that mobile advertising may not be so effective for high-involvement consumer goods. A possible reason for this is that high-involvement products usually require an attractive product display with a detailed description along with a specific price offer, which may be neither available nor practical in a mobile advertising campaign. Accepting the danger of oversimplification, practitioners especially need to take into account this implication, since many famous brands have started incorporating mobile marketing as a part of integrated marketing communications.

Finally, through the use of 'real' mobile campaigns as stimuli, we tested the effect of trust on attitudes toward the ad and the brand. Unlike prior research in mobile advertising, the data collection was carried out directly via the mobile messaging system. This study can be also regarded as a useful case of mobile-based survey research. As mobile telecommunication advances at a rapid pace, this mode of survey may provide a clear advantage, in that we can ensure that (1) the respondents are actual mobile Internet users, and thus, (2) the self-report answers reflect their 'true' experience in a mobile-based campaign. Until now, little research has paid attention to these issues, and therefore, this should be recognized as an important contribution of this study.

REFERENCES

- Anderson, J.C. and D.W. Gerbing (1988), 'Structural equation modeling in practice: a review and recommended two-step approach', *Psychological Bulletin*, **103**, 411–23.

- Andersson, A. and J. Nilsson (2000), 'Wireless advertising effectiveness: Evaluation of an SMS advertising trial', unpublished Master's thesis, Stockholm School of Economics.
- Baron, R.M. and D.A. Kenny (1986), 'The moderator–mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations', *Journal of Personality and Social Psychology*, **51**, 1173–82.
- Barwise, P. and C. Strong (2002), 'Permission-based mobile advertising', *Journal of Interactive Marketing*, **16**, 14–24.
- Chin, W.W. (1998), 'The partial least squares approach for structural equation modeling', in G.A. Marcoulides (ed.), *Modern Methods for Business Research*, Hillsdale, NJ: Lawrence Erlbaum Associates, pp. 295–336.
- Chin, W.W. (2000), 'Frequently asked questions – partial least squares and PLS-graph', Home page, available at: <http://disc-nt.cba.uh.edu/chin/plsfaq/plsfaq.htm> (1 August 2006).
- Chin, W.W. (2001), *PLS-Graph Version 3.0 User's Guide*, Soft Modeling Inc.
- D2 Communications (2005), 'Our line of business', Home page, available at: <http://www.d2c.com> (12 July 2005).
- Davis, F.D. (1993), 'User acceptance of information technology: system characteristics, user perceptions and behavioral impacts', *International Journal of Man–Machine Studies*, **38**, 475–87.
- Delgado, E. and J.L. Munuera (2001), 'Brand trust in the context of customer loyalty', *European Journal of Marketing*, **35**, 1238–58.
- Eastin, M.S. (2001), 'Credibility assessments of online health information: the effects of source expertise and knowledge of content', *Journal of Computer-Mediated Communication*, **6**, available at: <http://www.ascusc.org/jcmcc/vol6/issue4> (4 March 2004).
- Fishbein, M. and I. Ajzen (1975), *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*, Reading, MA: Addison-Wesley.
- Fournier, S. (1998), 'Consumers and their brands: developing relationship theory in consumer research', *Journal of Consumer Research*, **24**, 343–73.
- Gefen, D., E. Karahanna and D.W. Straub (2003), 'Trust and TAM in online shopping: an integrated model', *MIS Quarterly*, **27**, 51–90.
- Hair, J.F., W.C. Black, B.J. Babin, R.E. Anderson and R.L. Tatham (2006), *Multivariate Data Analysis*, 6th edn, Upper Saddle River, NJ: Prentice Hall.
- Hess, J. (1995), 'Construction and assessment of a scale to measure consumer trust', in B.B. Stern et al., (eds), *AMA Summer Educators' Conference, Enhancing Knowledge Development in Marketing*, American Marketing Association, Chicago, IL, **6**, pp. 20–26.
- Hoffman, D.L., T.P. Novak and M.A. Peralta (1999), 'Building consumer trust online', *Communications of the ACM*, **42**, 80–85.
- iMedia Connection (2005a), 'McDonald's goes mobile', Creative Showcase, available at: <http://www.imediaconnection.com/content/7191.asp> (18 November 2005).
- iMedia Connection (2005b), 'Ringling in a new marketing strategy', Creative Showcase, available at: <http://www.imediaconnection.com/content/6672.asp> (14 November 2005).
- Jevons, C. and M. Gabbott (2000), 'Trust, brand equity and brand reality in Internet business relationships: an interdisciplinary approach', *Journal of Marketing Management*, **16**, 619–34.

- Karjaluoto, H. and T. Alatalo (2007), 'Consumers' attitudes towards and intention to participate in mobile marketing', *International Journal of Services Technology and Management*, **8**, 155–73.
- Kim, D. and I. Benbasat (2003), 'Trust-related arguments in Internet stores: a framework for evaluation', *Journal of Electronic Commerce Research*, **4**, 49–64.
- Lee, M.K.O. and E. Turban (2001), 'A trust model for consumer Internet shopping', *International Journal of Electronic Commerce*, **6**, 75–91.
- Lin, H.H. and Y.S. Wang (2006), 'An examination of the determinants of customer loyalty in mobile commerce contexts', *Information & Management*, **43**, 271–82.
- Lu, F., C.S. Yu, C. Liu and F.E. Yao (2003), 'Technology acceptance model for wireless Internet', *Internet Research*, **13**, 206–22.
- MacKenzie, S.B. and R.J. Lutz (1989), 'An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context', *Journal of Marketing*, **53**, 48–65.
- Mylonopoulos, N.A. and G.I. Doukidis (2003), 'Introduction to the special issue: mobile business: technological pluralism, social assimilation, and growth', *International Journal of Electronic Commerce*, **8**, 5–22.
- Okazaki, S. (2004), 'How do Japanese consumers perceive wireless ads? A multivariate analysis', *International Journal of Advertising*, **23**, 429–54.
- Okazaki, S. (2005), 'Mobile advertising adoption by multinationals: senior executives' initial responses', *Internet Research: Electronic Networking and Applications*, **15**, 160–80.
- Pavlou, P.A. and D. Gefen (2004), 'Building effective online marketplace with institution-based trust', *Information Systems Research*, **15**, 37–59.
- Rettie, R., U. Grandcolas and B. Deakins (2005), 'Text message advertising: response rates and branding effects', *Journal of Targeting, Measurement and Analysis for Marketing*, **13**, 304–12.
- Sadeh, N. (2002), *M-Commerce: Technologies, Services, and Business Models*, New York, NY: John Wiley and Sons.
- Selnes, F. (1998), 'Antecedents and consequences of trust and satisfaction in buyer–seller relationships', *European Journal of Marketing*, **32**, 305–22.
- Senden Kaigi (2004), *Mobile Marketing Solutions*, Tokyo: Senden Kaigi (in Japanese).
- Spiller, L. and M. Baier (2005), *Contemporary Direct Marketing*, Upper Saddle River, NJ: Prentice Hall.
- Sultan, F. and A. Rohm (2005), 'The coming era of "Brand in the Hand" marketing', *MIT Sloan Management Review*, **47**, 83–90.
- Trappey III, R.J. and A.G. Woodside (2005), 'Consumer responses to interactive advertising campaigns coupling short-message-service direct marketing and TV commercials', *Journal of Advertising Research*, **45**, 382–401.
- Tsang, M.M., S.C. Ho and T.P. Liang (2004), 'Consumer attitudes toward mobile advertising: an empirical study', *International Journal of Electronic Commerce*, **8**, 65–78.
- Wang, Y.S. and Y.W. Liao (2006), 'The conceptualization and measurement of m-commerce user satisfaction', *Computers in Human Behaviour*, **23**, 381–98.
- Wingreen, S.C. and S.L. Baglione (2005), 'Untangling the antecedents and covariates of e-commerce trust: institutional trust vs. knowledge-based trust', *Electronic Markets*, **15**, 246–60.
- Wu, J.H. and S.C. Wang (2005), 'What drives mobile commerce? An empirical evaluation of the revised Technology Acceptance Model', *Information & Management*, **42**, 719–29.

10. Sources of trust in permission-based mobile marketing: a cross-country comparison

**Heikki Karjaluoto, Chanaka Jayawardhena,
Andreas Kuckertz and Teemu Kautonen**

MOBILE MARKETING AND THE ROLE OF TRUST

The development of new mobile technologies including advanced mobile handsets and network technologies such as 3G, opens up new opportunities in managing customer relationships. This chapter focuses on mobile marketing in the form of text messages as an active direct marketing medium. Particular strengths of the mobile medium include its personal nature and ubiquity, given that for instance in Germany, Europe's largest economy, the number of mobile phones recently exceeded the total German population (FDA, 2006). Additional benefits of mobile marketing include a high rate of personalization, interactivity and a low cost of reaching large target audiences at the right time and in the right place (Ankar and D'Incau, 2002; Facchetti et al., 2005). These strengths and characteristics of mobile marketing present marketers with many opportunities: for instance, a marketer can send a mobile message that may be able to influence a recipient mobile user's imminent purchase.

Mobile marketing literature has mainly focused on consumer perceptions of mobile marketing (for example Bauer et al., 2005; Dickinger et al., 2004; Lewis, 2001; Okazaki, 2004), and its effectiveness (for example Barwise and Strong, 2002; Kavassalis et al., 2003; Nysveen et al., 2005). Other areas such as the role of mobile marketing in the integrated marketing communications mix (Karjaluoto et al., 2004; Leppäniemi et al., 2006) and brand building (Rettie et al., 2005; Sultan and Rohm, 2005) are receiving more and more attention in the literature. The role of trust in the context of mobile marketing also belongs to these emerging, yet under-researched areas (Bauer et al., 2005; Karjaluoto, and Kautonen, 2006; Kautonen et al., 2007).

Trust has become a central topic in both marketing and management research especially in the past ten years. The issue of trust has been raised

in different contexts in business literature, including business relationships (for example Ganesan and Hess, 1997; Sako, 1992; Zaheer et al., 1998), organizational issues (for example Creed and Miles, 1996; Six, 2005) and electronic business (for example Ba et al., 2003; McKnight and Chervany, 2002; Shen and Siau, 2003; Yang et al., 2006). However, the literature on the role of trust in mobile marketing is still at an early stage.

Management and marketing literature attributes a number of positive characteristics and consequences to trust such as facilitation of open communication and flexibility, reduction of transaction costs and enhancement of commitment in customer relationships (Ba, 2001; Ganesan and Hess, 1997; Sako, 1992; Zaheer et al., 1998). While many of these apply equally to mobile marketing, there is an additional function of trust in this context which relates to the permission-based nature of mobile marketing. In many countries, government regulation dictates that prior permission be sought from the customer before a mobile marketing message can be sent (Barnes and Scornavacca, 2004; Barwise and Strong, 2002; Leppäniemi and Karjaluoto, 2005). In addition to the mobile phone number, the information collected from the customer granting their permission may include background and location information. The more companies can utilize various kinds of customer data, the more personalized and effective their mobile marketing messaging is likely to be (Yunos et al., 2003). Moreover, data on customer preferences enables the companies to make their messages relevant to the customer, whereby the messages also become more welcome (Ho and Kwok, 2003).

The need to provide permission and personal data raises trust issues which distinguish mobile marketing from many other consumer marketing situations. A relevant concern from the consumer perspective is how companies use these data. Previous studies have associated trust with the consumer's decision to provide personal information to marketers (Gordon and Schoenbachler, 2002; Shen and Siau, 2003). A recent UK-based study found that companies are reluctant to adopt mobile marketing mostly because they fear that the consumers are reluctant to participate, as consumers are thought to be concerned about the problems of email spamming being paralleled on their mobiles (Greenville, 2005). In the context of Internet sites, Hoffman et al. (1999) found that nearly 63 per cent of the customers who refuse to provide personal information base their decision on a lack of trust. A feeling of lack of control over how companies use the personal data was the main reason behind this lack of trust, and it is conceivable that similar concerns may exist in the context of mobile marketing. Therefore trust is an important factor affecting the customer's decision whether to permit mobile marketing, and to provide personal information in addition to the mobile phone number for mobile marketing purposes.

While trust is likely to have a number of functions in the mobile marketing context, the present treatise focuses on its role as a factor affecting permission.

While a considerable stream of research has examined the effects and different dimensions of trust – such as benevolence, integrity and competence (see Ganesan and Hess, 1997; Mayer et al., 1995; Nootboom, 2002; Sako, 1992) – few studies have focused on the antecedents or sources of trust (Bachmann, 2001; Welter and Kautonen, 2005; Zucker, 1986). Understanding the sources of trust is a key question both for strengthening the effectiveness of specific mobile advertising campaigns, products and services, and for developing the legitimacy of mobile marketing in general. This chapter investigates the different sources of trust by adopting a broad ‘embedded’ perspective, which has been developed in recent literature to address not only the sources of trust which are internal to the relationship between individuals and/or organizations, but also factors in the surrounding legal, social and cultural environment that affect the emergence and development of trust (Bachmann, 2001; Kautonen and Kohtamäki, 2006; Zucker, 1986). From this perspective, the bases of trust are likely to vary across countries due to differences in their legal, political and cultural frameworks (Bachmann, 2001; Doney et al., 1998; Järvenpää and Tractinsky, 1999; North, 1990). In order to take this into account and thereby contribute to a more robust understanding of the requirements of mobile marketing in different European markets, we collected data from three countries (Finland, Germany and the UK) by means of a standardized survey.

The next section of the chapter examines four different sources of trust, grouped under the more general constructs of personal and institutionally based trust, as factors affecting willingness to engage in mobile marketing. This is followed by the study methodology, results of the empirical cross-country analysis and discussion of the findings and implications. The concluding section summarizes our contribution to the theoretical understanding of mobile trust, highlighting implications for practitioners and discussing avenues for potential future research.

SOURCES OF TRUST IN THE CONTEXT OF MOBILE MARKETING

Trust refers to a belief that one party (the trustor) expects the other party (the trustee) to behave in a manner that is ‘beneficial or at least not detrimental’ to the trustor’s best interests when the trustee’s behaviour cannot be controlled (Gambetta, 1988, p. 217). This expectation is based on what

Nooteboom (2002) calls reflected trustworthiness – the reasons why the trustee would behave in a trustworthy manner as perceived by the trustor. The trustor, of course, may perceive these reasons correctly or incorrectly depending on the accuracy of their information regarding the trustee, the situation in which trust is to be placed, and the surrounding environment. Hence information becomes a central concept in analysing trust. Information in the form of external stimuli becomes knowledge through interpretation, which is based on the cognitive schemata of the individual (Koch, 1998). Since the cognitive schemata are a product of the individual's cumulative knowledge to date, the interpretation of new information is path-dependent. Thus, it is the trustor's current knowledge about the trustee, the situation and the surrounding environment that forms the foundation for their trusting behaviour. Since knowledge is both explicit and tacit, (Nelson and Winter, 1982), trust research must consider the fact that a large share of trust and trusting behaviour is actually based upon routine.

Trust-related information has many sources, which cumulatively shape the trustor's perception of the trustee's trustworthiness (see also the concept of the 'pyramid of trust' in Sztompka, 1999). Two general categories can be used to group the sources of information based upon which individuals assess trust in the context of permission-based mobile marketing: personal trust and institutionally-based trust (Welter and Kautonen, 2005; Zucker, 1986). Each of these categories comprises two sub-categories, which are described below and illustrated in Figure 10.1. The acronyms used in the following discussion refer to the constructs in our empirical study and will be used throughout the empirical analysis.

Personal trust assumes direct or indirect experiences with the trustee, which shape the trustor's perception as to the trustee's trustworthiness. In the case of mobile marketing, experiences can accumulate when the customer uses the company's products and services (mobile or otherwise) or encounters its service personnel. Experience shapes the customer's perception of the company including its perceived trustworthiness. Direct experiences refer to the customer's own past experiences (EXP) with the company (Kautonen and Kohtamäki, 2006; Sztompka, 1999; Yamagishi and Yamagishi, 1994). Some authors argue that this is the strongest source of trust (Kautonen and Welter, 2005; Lewis and Weigert, 1985; Sztompka, 1999). Indirect experiences refer to social influence (SOS), which is based on the experiences friends, family members, colleagues and other acquaintances in the customer's social network have had with the company, which they pass on to the customer in the form of recommendations and anecdotes (Bauer et al., 2005; Sztompka, 1999; Welter and Kautonen, 2005).

Institutionally-based trust (Zucker, 1986) refers to those sources of trust that are a product of the environment in which the trust relationship is

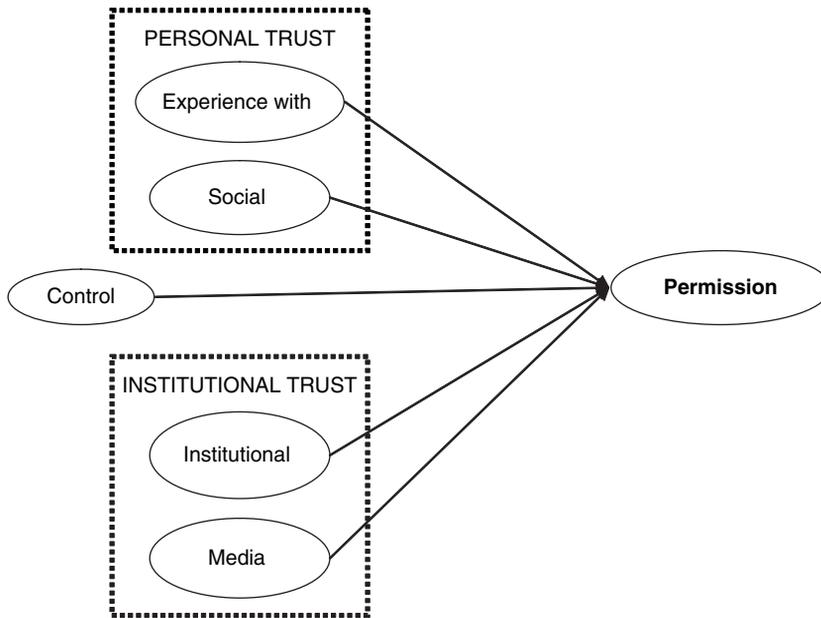


Figure 10.1 Conceptual model of the factors affecting the consumer's willingness to participate in mobile marketing

embedded. Other similar concepts used in the literature include impersonal trust (Shapiro, 1987), system trust (Luhmann, 1979) and extended trust (Raiser, 1999). Related sources of trust include, for example, legal, cultural and political institutions, civil societal organizations such as clubs and associations, and the media (North, 1990; Raiser, 1999; Sztompka, 1999; Zucker, 1986). We argue that the media and institutional regulation consisting of formal legal rules and informal, socio-culturally-based norms and codes of conduct are particularly relevant in the context of mobile marketing.

Individuals have limited access to information via personal experience and social networks, which is why they also rely on news reporting and advertising presented in the media (Shapiro, 1987). Thus, we propose that the company's media presence (MED) affects the way the consumer perceives the trustworthiness of the company in general, and the trustworthiness of its mobile marketing communications in particular. For example, continuous advertising and a general presence in major media communicates a certain seriousness and stability of the company, and increases the consumer's familiarity with the company and its products, thereby constituting a source of trust. The results of Li and Miniard's (2006) experimental study indicated

that advertising enhanced a brand's perceived trustworthiness – even if the advertisements did not contain any overt claims to trust. Moreover, news reporting and articles in the media concerning mobile marketing affect its general legitimacy in the market either favourably or unfavourably.

Institutional regulation (INS) refers in particular to the formal components of the institutional framework – legal norms, regulations and their enforcement (North, 1990). On the other hand, formal institutions alone are insufficient. They must be supported and complemented by appropriate informal institutions, which according to North (1990) comprise values, norms and codes of conduct that are deeply embedded in culture. Informal institutions may support or contradict formal rules. A simple example would be pedestrian traffic lights: while jaywalking is illegal in most countries (formal institution), it might be considered appropriate by most people to neglect this rule in some countries (informal norm contradicts the formal rule) and inappropriate in others (informal norm validates the formal rule). Here the informal institution provides 'a culture-specific interpretation of formal rules' (Welter and Smallbone, 2003, p. 98). As a whole, formal and informal institutions define the 'rules' of appropriate behaviour in a social entity (Kautonen and Kohtamäki, 2006). Given its rather abstract nature, institutionally-based trust in general can be assumed to be largely based on tacit knowledge.

The sources of institutional regulation that provide safeguards against the misuse of customer information include national governments, the EU and trade associations such as the Mobile Marketing Association. For example, the European Union, approved a new directive (Directive/58/EC) which established standards for the processing of personal data and the protection of privacy in the electronic communications sector (European Union, 2002). However, customers need not only to be informed about the rules, but also have to be convinced that the rules are credibly enforced if these are to affect their decision-making (North, 1990). This may be difficult because in order for legal sanctions to be imposed, the misuse of customer data, or any other breach, must not only be noticed, but also credibly proven. The Mobile Marketing Association (2007) can provide a source of trust by establishing a universal Code of Conduct. However, in order for the Code of Conduct to influence the customers' decision-making, the association must establish its legitimacy and convince the customers of its value. Moreover the criterion of credible enforcement may be difficult to achieve and communicate convincingly in the market.

In addition to the trust-related variables, we examined the customer's control (CON) over the number and type of mobile messages and the continuation/discontinuation of the mobile service as a potential substitute for trust (Blomqvist et al., 2005; Nooteboom, 2002).

We tested the impact of the different sources of trust and control on the customer's willingness to provide permission and personal information for mobile marketing purposes in a previous paper (Kautonen et al., 2007). The test was performed based on data from Finland, Germany and the UK (see below for details) utilizing structural equation modelling with LISREL8.7. The main finding was that the company's presence in the media in the form of advertisements, is clearly the most important factor in this context. Experience and institutional regulation were also statistically significant, although both clearly play lesser roles compared to media presence. While media presence was statistically significant in all three countries, the other factors that play a role in this context differed considerably with regard to country. This chapter looks more closely into the cross-country differences.

METHODS

While there is an abundance of measurement scales for trust in the previous literature (for example Cummings and Bromiley, 1996; Ganesan, 1994; Gillespie, 2003; Morgan and Hunt, 1994), none of them measure the sources of trust as intended in the present study. Therefore we developed new scales based on the literature reviewed in the previous section. The individual items enquired about people's attitudes towards the range of factors identified in the conceptual framework by employing a seven-point Likert scale. The full research instrument is available from the authors upon request. Given the cross-cultural nature of our study, particular care had to be taken in translating the measures used in the survey, in order to secure that all respondents from Finland, Germany and the UK perceived the questionnaire in a similar manner. Based on the Finnish questionnaire, German and English versions were developed following the standard procedures recommended by Brislin et al. (1973) allowing the identification and elimination of perceived differences between the various versions of the questionnaire.

The data collection for this study was carried out by means of a survey questionnaire in Finland, Germany and the UK in 2005–2006. The national samples comprised of 200 respondents in Finland, 207 in Germany and 260 in the UK. All samples consisted of university students. We decided to focus on this particular target group because a largely student-based sample suits a study of mobile marketing very well: this particular demographic group is in general more familiar with mobile services and uses them more than the population on average (Karjaluoto et al., 2005; Wilska, 2003). Moreover young people can be regarded as one of the

major target groups of mobile marketing campaigns. These samples also ensured that we had respondents in the international sample that had experience of giving permission and personal information to mobile marketers.

RESULTS

Sample Characteristics

The gender distribution of the combined three-country dataset shows that 55 per cent of the respondents are male. Most are single (71 per cent) and fall into the 16–25-year-old age bracket (86 per cent). The German data is male dominated (68 per cent) and, because of the different system of higher education in this country, the German respondents are somewhat older on average (69 per cent being between 21 and 25 years old and 25 per cent between 26 and 35 years old). The Finnish data is slightly female dominated (59 per cent) with most respondents belonging to the 21–25-year-old age group (55 per cent). The UK data is slightly male dominated (55 per cent) and represents the youngest group among the three country samples (97 per cent being aged between 16 and 20).

With respect to the respondents' experience of mobile marketing, 60 per cent of the respondents across the combined data had received at least one marketing text message during the last month, and around 9 per cent had received more than five marketing text messages. Additionally close to 30 per cent reported having received at least one marketing text message in the previous month from a source whom they could not remember having given permission to. In terms of participating in mobile marketing, around 30 per cent had more than once requested information such as phone numbers, news, weather forecasts and sports news by text message during the last six months. A total of 22 per cent reported having ordered ring tones, screen savers or logos during the last month at least once. Less than 10 per cent had responded to a marketing text message by replying to the message (for example by ordering a product or service or requesting more information) during the last six months. Close to 13 per cent had responded to a mobile marketing message either by visiting a website or by phoning the company. Around 20 per cent of the respondents reported having participated in a lottery, TV programme or having voted by using text messages.

Table 10.1 compares the respondents' experience of mobile services in Finland, Germany and the UK by means of an analysis of variance test in which the dependent variable was country of origin and the independent variable a particular use of mobile services. The results show that there are statistically significant differences ($p < 0.001$) in all cases except in how many

Table 10.1 Use of mobile services in Germany (GER), Finland (FIN) and the UK: results of the one-way analysis of variance test (ANOVA)

Variable	Group	N	Mean	s.d.	Mean square between groups	F value	Sig.
Messages last month	GER	206	2.11	10.73	77.214	1.237	.291
	FIN	199	2.44	3.03			
	UK	256	3.23	7.84			
Messages last month without permission	GER	204	0.71	1.64	61.725	10.324	.000
	FIN	198	0.40	1.15			
	UK	250	1.42	3.51			
Information requested	GER	205	0.39	1.44	2110.627	39.008	.000
	FIN	200	6.52	9.61			
	UK	253	1.77	8.13			
Services requested	GER	204	0.16	.68	81.006	13.197	.000
	FIN	200	1.37	3.97			
	UK	253	0.44	1.77			
Responses to messages directly	GER	204	0.02	.17	5.225	12.691	.000
	FIN	200	0.34	.94			
	UK	256	0.13	.59			
Responses to messages by web/call	GER	206	0.09	.35	3.786	7.871	.000
	FIN	200	0.36	.99			
	UK	255	0.21	.61			
TV participation by SMS	GER	206	0.19	.39	7.381	12.646	.000
	FIN	200	0.51	1.26			
	UK	255	0.17	.39			
Participation in sweepstakes	GER	204	0.66	1.53	31.884	18.939	.000
	FIN	199	0.81	1.65			
	UK	255	0.11	.58			

Note: Scales from 1 ('strongly disagree') to 7 ('strongly agree').

text or multimedia marketing messages the respondents had received during the preceding month.

It appears that consumers in the UK receive more unsolicited mobile marketing messages than the other groups. Unwanted marketing messages arrive on British consumers' mobile phones twice as often as on the average German consumer's device and almost three times as often as in the Finnish case. Interestingly Finns have requested over three times more information such as phone numbers, news, weather forecasts and sports news by text message during the last six months than the UK group, and over 16 times more than the Germans. Similarly the Finns have been most

active in ordering mobile services such as ring tones, logos and screen savers. While the German market for such services seems to be still in its infancy, the British consumer appears to have already accepted these services and the Finnish market is clearly in the lead compared to these two other European markets.

It is also obvious from the table that Finnish respondents have reacted most positively to mobile marketing campaigns through a variety of means: by replying to the message directly, by visiting a website, by calling or by participating in TV programmes and sweepstakes. Whereas marketers can reach only early-adopters and people quite attuned to technology and new marketing formats in Germany and the UK, mobile marketing in Finland has already developed to a level that can be considered mainstream.

Sources of Trust

Individual differences between the respondents in terms of the sources of trust were examined by the use of an analysis of variance test in which the dependent variable was country of origin and the independent variable a trust dimension (Table 10.2). Before the variance test, we created composite variables of the individual items hypothesized to belong to the respective construct. Against this background, it is important to demonstrate that the scales used in the survey instrument were sound. Cronbach's alpha was utilized for this purpose. Cronbach's alpha measures how well a set of items (or variables) reflects a single unidimensional latent construct. It was ascertained that the scales were internally consistent with high construct validity. The alphas for the study constructs ranged from .70 to .92, which exceeds recommended thresholds (Nunnally, 1978, p. 245).

As can be seen, the differences in means are statistically significant (p.001) in all cases between the three countries under investigation. A general trend in the results is that the German respondents provide consistently lower ratings in all categories. A likely interpretation, as supported by the results in Table 10.1, is that the German sample is the least experienced in using mobile services in general, which might reflect in a lower general legitimacy of mobile marketing, which in turn affects the ratings. The willingness to provide permission and personal information to mobile marketers is fairly low in all countries, with a mean value of below three for the combined three-country dataset. Probably as a result of their lesser experience with mobile marketing, the German consumers are less willing to permit mobile marketing than their Finnish and UK counterparts. Next, we discuss the differences related to each of the four sources of trust, starting with the largest differences and drawing comparisons with our previous

Table 10.2 Results of the one-way analysis of variance test (ANOVA) for the composite variables measuring the factors affecting general willingness to permit mobile marketing: Germany (GER), Finland (FIN), the UK and the combined data from all three countries (ALL)

Variable	Group	n	Mean	s.d.	alpha	Mean square between groups	F value	Sig.
Permission (PER)	GER	203	2.55	1.24	.89	15.687	10.553	.000
	FIN	186	2.99	1.26	.84			
	UK	222	3.06	1.17	.80			
	ALL	611	2.87	1.24	.85			
Experience with the company (EXP)	GER	205	3.46	1.61	.91	63.239	25.892	.000
	FIN	184	4.57	1.55	.88			
	UK	241	4.22	1.53	.86			
	ALL	630	4.08	1.62	.89			
Social influences (SOS)	GER	207	3.44	1.56	.91	47.459	20.310	.000
	FIN	186	4.23	1.57	.86			
	UK	248	4.28	1.47	.86			
	ALL	641	4.00	1.57	.88			
Media presence (MED)	GER	206	2.72	1.32	.93	45.243	24.852	.000
	FIN	185	3.28	1.38	.89			
	UK	236	3.62	1.35	.92			
	ALL	627	3.23	1.40	.92			
Institutional regulations (INS)	GER	205	3.71	1.19	.81	18.784	11.692	.000
	FIN	179	4.26	1.39	.84			
	UK	206	4.21	1.23	.83			
	ALL	590	4.05	1.29	.83			
Control (CON)	GER	205	4.04	1.62	.90	23.418	9.344	.000
	FIN	171	4.58	1.54	.71			
	UK	232	4.66	1.58	.85			
	ALL	608	4.43	1.60	.83			

Note: Scales from 1 ('strongly disagree') to 7 ('strongly agree').

paper (Kautonen et al., 2007) in which we examined the actual impact of the various sources of trust and control on the customer's willingness to permit mobile marketing.

The largest difference was found in the construct measuring the importance of personal experience of the company's products and services, direct marketing campaigns or customer relationship duration ($F=25.9$). Finnish consumers regarded their personal experience with the company as more

important than the other two groups, which is interesting because in our previous analysis, experience was not a significant factor influencing permission in Finland. In fact, experience was only significant amongst the UK group. Thus, while Finnish consumers value experience with the company as such slightly higher, the more important decision for the UK consumers is whether to give permission and personal information to mobile marketers. With respect to the company's advertising presence in media, the mean difference was slightly smaller than with personal experience with the company ($F=24.9$). The UK group seemed to value a company's media presence more than the other groups. However, in our previous study, media presence clearly influenced the Finnish consumers' decision to permit mobile marketing more than it did the UK or German consumers. So once again, the value placed on a factor in itself, does not equate to its role in the consumer's decision making.

In terms of the impact of social influence, the mean differences were the third highest ($F=20.3$). The German group in particular differed from the other two considerably in terms of its low mean value, which is interesting given that social influence was one of the strongest predictors of permission in the German sample in our previous study. The differences in terms of institutional regulation were clearly the smallest among the four sources of trust ($F=11.7$). Again the German consumers rate the factor as less important than the Finnish and UK consumers, between whom there is little difference. In our previous study, institutional regulation was not a significant predictor of permission in any single-country model.

Taking the survey respondents in the countries individually, and as a collective group across the three countries, a consumer's control over the mobile marketing process displays a mean value of above four, but shows the smallest mean difference ($F=9.34$), which is still statistically significant. This appears to be due to the comparatively high rating given to control by the German consumers. Interestingly, while the Finnish consumers give high ratings to the importance of control, based on our previous study this does not seem to affect their decision whether to permit mobile marketing per se. In Germany and the UK, on the other hand, having control over mobile marketing was a significant predictor of permission.

CONCLUSION

The sources of a consumer's trust in mobile marketing have not been known until now. This chapter shed light on this issue by examining survey data from young consumers in Finland, Germany and the UK by means of analyses of variance. Experience with the company, social influence, media

presence and institutional regulation were explored as sources of trust, and contrasted with the customer's control over mobile marketing. The analysis shows that scales used in the survey instrument were sound, internally consistent and with a high construct validity.

The results demonstrated that the respondents did have experience in giving permission and requesting mobile services, and that there were significant differences among countries. Finnish consumers were the most likely to request information such as news, weather forecasts and sports news by text message, and German consumers were least likely to make such requests. This order of Finns, British and Germans is found in ordering mobile services, and also with respect to responding most positively to text message marketing. An explanation for this specific behaviour might be attributed to the different stages of market development in the three surveyed countries – both for the mobile business environment in general and for the mobile marketing environment in particular. The favourable disposition of Finns towards the aforementioned characteristics is a direct consequence of their higher level of experience, and the opposite is true for German consumers.

Consumers in the UK are more likely to receive unsolicited mobile marketing messages than the other groups. Somewhat understandably, UK consumers therefore expressed the strongest desire to have the most amount of control over their ability to give permission and personal information to mobile marketers. In fact, taking consumers in the countries individually, and as a collective group across the three countries, control was found to receive fairly high mean values as a factor influencing the consumers' willingness to permit mobile marketing. In other words, consumers seem quite keen to ensure that companies should only use personal information when explicit permission is given by the owner of the information, and that the owner retains the right to withdraw this permission at any given time. However, our previous analysis based on structural equation modelling, reported in Kautonen et al. (2007), showed that while control had a significant impact on the German and UK consumers' willingness to permit mobile marketing, it had no effect whatsoever for Finnish consumers.

In terms of the sources of trust, the differences between Finnish and UK consumers were fairly small, while the German respondents provided consistently lower ratings in each category. This might be due to them being less experienced with mobile marketing in general. Interestingly, there were only minor differences in the mean values attributed to experience with the company, social influence and institutional regulation as sources of trust in each country sample. Media presence, on the other hand, was rated the lowest in each country. This is rather interesting given that in our previous

analysis of the impact of the different sources of trust on the consumer's willingness to permit mobile marketing (Kautonen et al., 2007), we concluded that media presence was the strongest predictor of permission in Finland and the UK and a statistically significant one in Germany too.

In conclusion, it is safe to assume that the three countries under investigation not only differ in terms of the adoption of mobile marketing technologies, but also in terms of the possible antecedents of the willingness to permit mobile marketing campaigns. Mobile marketers would be well advised to pay attention to these differences when planning both international and national campaigns.

REFERENCES

- Anckar, B. and D. D'Incau (2002), 'Value-added services in mobile commerce: an analytical framework and empirical findings from a national consumer survey', Proceedings of the 35th Hawaii International Conference on System Sciences (HICSS-35), Hawaii, January.
- Ba, S. (2001), 'Establishing online trust through a community responsibility system', *Decision Support Systems*, **31**, 323–36.
- Ba, S., A.B. Whinston and H. Zhang (2003), 'Building trust in online auction markets through an economic incentive mechanism', *Decision Support Systems*, **35**, 273–86.
- Bachmann, R. (2001), 'Trust, power and control in trans-organizational relations', *Organization Studies*, **22**, 337–65.
- Barnes, S. and E. Scornavacca (2004), 'Mobile marketing: the role of permission and acceptance', *International Journal of Mobile Communications*, **2**, 128–39.
- Barwise, P. and C. Strong (2002), 'Permission-based mobile advertising', *Journal of Interactive Marketing*, **16**, 14–24.
- Bauer, H.H., T. Reichardt, S.J. Barnes and M.M. Neumann (2005), 'Driving consumer acceptance of mobile marketing: a theoretical framework and empirical study', *Journal of Electronic Commerce Research*, **6**, 181–92.
- Blomqvist, K., P. Hurmelinna and R. Seppänen (2005), 'Playing the collaboration game right: balancing trust and contracting', *Technovation*, **25**, 497–504.
- Brislin, R., W. Lonner and R. Thorndike (1973), *Cross-Cultural Research Methods*, Chichester: Wiley.
- Creed, W.E.D. and R.E. Miles (1996), 'Trust in organizations: a conceptual framework linking organizational forms, managerial philosophies, and the opportunity costs of controls', in R.M. Kramer and T.R. Tyler (eds), *Trust in Organizations: Frontiers of Theory and Research*, Thousand Oaks: Sage, pp. 16–39.
- Cummings, L.L. and P. Bromiley (1996), 'The organizational trust inventory (OTI): development and validation', in R.M. Kramer and T.R. Tyler (eds), *Trust in Organizations: Frontiers of Theory and Research*, Thousand Oaks: Sage, pp. 302–25.
- Dickinger, A., P. Haghirian, J. Murphy and A. Scharl (2004), 'An investigation and conceptual model of SMS marketing', Proceedings of the 37th International Conference on System Sciences (HICSS-04), Hawaii, January.

- Doney, P.M., J.P. Cannon and M.R. Mullen (1998), 'Understanding the influence of national culture on the development of trust', *Academy of Management Review*, **23**, 601–20.
- European Union (2002), '2002/58/EC', Official Journal at OJ L201/37 31, available online at: http://europa.eu.int/information_society/topics/telecoms/regulatory/new_rf/index_en.htm (21 March 2007).
- Facchetti, A., A. Rangone, F.M. Renga and A. Savoldelli (2005), 'Mobile marketing: an analysis of key success factors and the European value chain', *International Journal of Management and Decision Making*, **6**, 65–80.
- FDA (2006), Website of the Federal Network Agency, available online at: <http://www.bundesnetzagentur.de> (28 March 2007).
- Gambetta, D. (1988), 'Can we trust trust?', in D. Gambetta (ed.), *Trust: Making and Breaking Cooperative Relations*, Oxford: Basil Blackwell, pp. 213–37.
- Ganesan, S. (1994), 'Determinants of long-term orientation in buyer–seller relationships', *Journal of Marketing*, **58**, 1–19.
- Ganesan, S. and R. Hess (1997), 'Dimensions and levels of trust: implications for commitment to a relationship', *Marketing Letters*, **8**, 439–48.
- Gillespie, N. (2003), 'Measuring trust in working relationships: the Behavioral Trust Inventory', paper presented at the Academy of Management Conference, Seattle, August.
- Gordon, G.L. and D.D. Schoenbachler (2002), 'Trust and customer willingness to provide information in database-driven relationship marketing', *Journal of Interactive Marketing*, **16**, 2–16.
- Greenville, M. (2005), 'Stats & research: big brands still won't use mobile', 160Characters, available: <http://www.160characters.org/news.php?action=view&nid=1647>.
- Ho, S.Y. and S.H. Kwok (2003), 'The attraction of personalized service for users in mobile commerce: an empirical study', *ACM SIGecom Exchanges*, **3**, 10–18.
- Hoffman, D.L., T.P. Novak and M. Peralta (1999), 'Building consumer trust online', *Communications of the ACM*, **42**, 80–85.
- Järvenpää, S.L. and N. Tractinsky (1999), 'Consumer trust in an Internet store: a cross-cultural validation', *Journal of Computer-Mediated Communication*, **5**, available online at: <http://jcmc.indiana.edu/vol5/issue2/jarvenpaa.html> (21 March 2007).
- Karjaluoto, H. and T. Kautonen (2006), 'Trust as a factor affecting consumers' willingness to participate in mobile marketing', Proceedings of the 35th European Marketing Academy Conference, Athens, May.
- Karjaluoto, H., M. Leppäniemi and J. Salo (2004), 'The role of mobile marketing in companies' promotion mix: empirical evidence from Finland', *Journal of International Business and Economics*, **2**, 111–16.
- Karjaluoto, H., J. Karvonen, M. Kesti, T. Koivumäki, M. Manninen, J. Pakola, A. Ristola and J. Salo (2005), 'Factors affecting consumer choice of mobile phones: two studies from Finland', *Journal of Euromarketing*, **14**, 59–82.
- Kautonen, T. and M. Kohtamäki (2006), 'Endogenous and exogenous determinants of trust in inter-firm relations: a conceptual analysis based on institutional economics', *Finnish Journal of Business Economics*, **55**, 277–95.
- Kautonen, T. and F. Welter (2005), 'Trust in small-firm business networks in East and West Germany', in H.-H. Höhmann and F. Welter (eds), *Trust and Entrepreneurship: A West–East Perspective*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar, pp. 219–34.

- Kautonen, T., H. Karjaluo, C. Jayawardhena and A. Kuckertz (2007), 'Permission-based mobile marketing and sources of trust in selected European markets', *Journal of Systems and Information Technology*, **11**, 104–23.
- Kavassalis, P., N. Spyropoulou, D. Drossos, E. Mitrokostas, G. Gikas and A. Hatzistamatiou (2003), 'Mobile permission marketing: framing the market inquiry', *International Journal of Electronic Commerce*, **8**, 55–79.
- Koch, L.T. (1998), 'Kognitive Determinanten der Problemstellung und –behandlung im wirtschaftspolitischen Prozeß', *Zeitschrift für Wirtschafts- und Sozialwissenschaften*, **118**, 597–622.
- Leppäniemi, M. and H. Karjaluo (2005), 'Factors influencing consumer willingness to accept mobile advertising: a conceptual model', *International Journal of Mobile Communications*, **3**, 197–213.
- Leppäniemi, M., H. Karjaluo, J. Sinisalo, J. Salo and F. Li (2006), 'The mobile network as a new medium for marketing communications: a case study from Finland', in B. Unhelkar (ed.), *Handbook of Research in Mobile Business: Technical, Methodological and Social Perspectives Vol. 2*, Hershey: Idea-Group Reference, pp. 708–18.
- Lewis, J.D. and A. Weigert (1985), 'Trust as a social reality', *Social Forces*, **63**, 967–85.
- Lewis, S. (2001), 'M-commerce: ads in the ether', *Asian Business*, **37**, p. 31.
- Li, F. and P.W. Miniard (2006), 'On the potential for advertising to facilitate trust in the advertised brand', *Journal of Advertising*, **35**, 101–12.
- Luhmann, N. (1979), *Trust and Power*, Chichester: Wiley.
- Mayer, R.C., J.H. Davis and F.D. Schoorman (1995), 'An integrative model of organizational trust', *Academy of Management Review*, **20**, 709–34.
- McKnight, D.H. and N.L. Chervany (2002), 'What trust means in e-commerce customer relationships: an interdisciplinary conceptual typology', *International Journal of Electronic Commerce*, **6**, 35–59.
- Mobile Marketing Association (2007), 'Code of conduct for mobile marketing', available: <http://mmaglobal.com/modules/content/index.php?id=5> (27 March 2007).
- Morgan, R.M. and S. Hunt (1994), 'The commitment-trust theory of relationship marketing', *Journal of Marketing*, **58**, 20–38.
- Nelson, R.R. and S.G. Winter (1982), *An Evolutionary Theory of Economic Change*, Cambridge, Mass.: Belknap Press.
- Nooteboom, B. (2002), *Trust: Forms, Foundations, Functions, Failures and Figures*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.
- North, D.C. (1990), *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.
- Nunnally, J. (1978), *Psychometric Theory*, New York: McGraw-Hill.
- Nysveen, H., P.E. Pedersen and H. Thorbjørnsen (2005), 'Intentions to use mobile services: antecedents and cross-service comparisons', *Journal of the Academy of Marketing Science*, **33**, 330–46.
- Okazaki, S. (2004), 'How do Japanese consumers perceive wireless advertising? A multivariate analysis', *International Journal of Advertising*, **23**, 429–54.
- Raiser, M. (1999), 'Trust in transition', European Bank for Reconstruction and Development Working Paper No. 39.
- Rettie, R., U. Grandcolas and B. Deakins (2005), 'Text message advertising: response rates and branding effects', *Journal of Targeting, Measurement and Analysis for Marketing*, **13**, 304–12.

- Sako, M. (1992), *Prices, Quality and Trust: Inter-Firm Relations in Britain and Japan*, Cambridge: Cambridge University Press.
- Shapiro, S.P. (1987), 'The social control of impersonal trust', *American Journal of Sociology*, **93**, 623–58.
- Shen, Z. and K. Siau (2003), 'Building customer trust in mobile commerce', *Communications of the ACM*, **46**, 91–4.
- Six, F. (2005), *The Trouble with Trust: The Dynamics of Interpersonal Trust Building*, Cheltenham, UK and Northampton, MA, USA: Edward Elgar.
- Sultan, F. and A. Rohm (2005), 'The coming era of "brand in the hand" marketing', *MIT Sloan Management Review*, **47**, 83–90.
- Sztompka, P. (1999), *Trust: A Sociological Theory*, Cambridge: Cambridge University Press.
- Welter, F. and D. Smallbone (2003), 'Entrepreneurship and enterprise strategies in transition economies: an institutional perspective', in D. Kirby and A. Watson (eds), *Small Firms and Economic Development in Developed and Transition Economies: A Reader*, Aldershot: Ashgate, pp. 95–114.
- Welter, F. and T. Kautonen (2005), 'Trust, social networks and enterprise development: exploring evidence from East and West Germany', *International Entrepreneurship & Management Journal*, **1**, 367–79.
- Wilska, T.-A. (2003), 'Mobile phone use as part of young people's consumption styles', *Journal of Consumer Policy*, **26**, 441–63.
- Yamagishi, T. and M. Yamagishi (1994), 'Trust and commitment in the United States and Japan', *Motivation and Emotion*, **18**, 129–66.
- Yang, S.-C., W.-C. Hung, K. Sung and C.-K. Farn (2006), 'Investigating initial trust toward e-tailers from the elaboration likelihood model perspective', *Psychology and Marketing*, **23**, 429–45.
- Yunos, H.M., J.Z. Gao and S. Shim (2003), 'Wireless advertising's challenges and opportunities', *IEEE Computer*, **36**, 30–37.
- Zaheer, A., B. McEvily and V. Perrone (1998), 'Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance', *Organization Science*, **9**, 141–58.
- Zucker, L.G. (1986), 'Production of trust: institutional sources of economic structure, 1840–1920', *Research in Organizational Behavior*, **8**, 53–111.