THE FEASIBILITY OF CONDUCTING MARKETING RESEARCH VIA MOBILE PHONES

Presented by Mary Lentros

Research conducted under the supervision of Dr Iain Black, University of Sydney
ABSTRACT

The research study involves the exploration into the feasibility of conducting marketing research via mobile telephones. It involves the study of research methods such as self-administered surveys, interviews, and focus groups through media such as SMS (Short Message Service), MMS (Multimedia Messaging Service), phone calls and video calls. This is an important area as mobile phones have become such a prevalent form of communication in society, and marketing researchers have aimed to find newer methods for conducting research. Because there is previously very little research in this area, an approach must be taken from several surrounding areas of literature such as the diffusion of innovations, data collection methods, decision making theories in regards to research participation, marketing via mobile phones, and social interactions with mobile phones. Knowledge of this literature, as well as the data collected through focus groups will be used to analyse the research aim in question and provide a framework for the successful implementation of marketing research via mobile phones. The outcomes of the study are expected to have benefits for both marketing academics and practitioners.
INTRODUCTION

Background
The marketing research domain has grown with changes in society to find more feasible methods for conducting research and to meet the needs for increased reliability and validity. Survey methods have shifted with changes in technology from the post to telephone and more recently to the internet and email. However, the reliability of these methods is of some concern, and it is becoming more and more difficult to retain samples of respondents. (Adam and McDonald, 2003) Thus there is a need to look at new vehicles for survey data collection and the next technological advancement is through mobile phones.

Importance
Mobile phone usage has grown at a phenomenal rate with 72% of all households in Australia with access to a mobile phone in 2002. This signified an increase from 61% of households with access to a mobile phone in 2000, compared to 33% of households having internet access in 2000 (ABS, 2004).

The main benefits of conducting research via mobile phones as identified by Long, Whinston and Tomak (2002) include:
1. It is instantaneous, responses can be received instantly. This reduces the time lag associated with more traditional methods allowing for research to be conducted in a shorter period of time. Also an SMS (Short Message Service) is not as intrusive as a phone call so respondents may be more likely to participate and they may reply at a time that is suitable for them.
2. It is mobile, no matter where respondents are, they can receive and reply to messages. An implication of this is that it reduces the problem of memory recall as customers are able to reply to messages when they are in a purchasing environment.
3. It is a personal medium, so it is always associated with the same person, making it especially suitable for longitudinal studies (especially when compared to email surveys, as individuals change their email addresses more often than mobile phone numbers).

Weaknesses of previous work/ Gap
There is an extensive gap in the academic literature on this subject. Traditionally many papers have focused on postal and telephone surveys and polls, whereas more recently there has been a shift towards more technologically advanced methods, such as email surveys. (Ranchhod and Zhou, 2001; Tse, 1998; Kent and Brandall, 2003). While mobile phone research is being used by marketing research agencies, there has been no academic research previously on the subject, and an absence of work on the survey design and respondent factors influencing participation in mobile phone research. SMS has been researched as a medium for advertising, the results of which have found to be quite encouraging; therefore there can be a focus on marketing research via SMS as well. The literature relating to the diffusion of innovations, mobile phone interactions and decision making processes also contains weaknesses as it does not account for this new area. These gaps will be discussed further in the literature review.

Aims and objectives
The aim of this research is to gain an understanding of the feasibility of conducting marketing research via mobile phones, that is whether it is a possible medium for research, and if so, how could research possibly be implemented. The project will involve the investigation into the factors affecting response rates and response quality for surveys, interviews and focus groups via phone calls, SMS, MMS (Multimedia Message Service) and video calls.
The objectives that the research study will address include:
1. How are mobile phones and the marketing research process viewed by respondents?
2. What research design factors affect the feasibility of mobile phone surveys?
3. What specific content is mobile phone research more suitable for?
4. What respondent factors affect the likelihood to participate in mobile phone research?
5. How would respondents make their decision to participate in mobile phone research?

**Justification**

The gaps in the literature suggest that there is a need to explore the feasibility of mobile phones as a marketing research medium, as mobile phones have become an important technological advancement and are pervasive in our daily lives. As social conditions change, it is important to shift the focus from using landline telephones, the post and email as media for marketing research, to more mobile technologies as individuals become more and more unavailable via traditional methods. The results of the research will be useful for both marketing academics and practitioners as they will have a greater understanding of the survey process via mobile phones and be able to manage it to produce more effective results.

**Scope and limitations**

The scope of the study is to investigate all types of research methods such as self administered surveys, interviews and focus groups which can be used via mobile phones. The study is aimed at discovering the demand side of market research and so it is limited to an analysis of respondent participation. It does not include the market researcher’s perceptions of mobile surveys, however since it is already being used by some market research agencies; it is likely that it is viewed favourably from the supply side.

**LITERATURE REVIEW**

As this is a new area of study, past research from several areas needs to be assessed to form a synthesis approach to the current area of interest. The most important subjects of research that need to be reviewed include data collection methods, especially via technology, and the diffusion of innovations (or ideas). The three other areas of interest are respondents’ decision making for survey participation, research in mobile marketing, and individuals’ interactions with their mobile phones (see figure 1).

![Figure 1. Approach to literature review](image-url)
**Data collection methods**

In conducting research, the most important issues that arise in data collection are the suitability of the method for the purposes and objectives of the study, the reliability and validity obtainable from the specific method chosen, the acceptability of its use, as well as the practicality for both respondents and researchers (Strickland et al, 2003).

With the proliferation of internet and email surveys in recent times, it is essential to understand the issues arising from these technologically advanced data collection methods. Online research has dramatically increased reliability compared to traditional phone surveys. As lifestyles have changed, respondents are more difficult to contact and therefore those that spend less time at home are excluded from samples. This problem is further exacerbated as not all individuals have landline telephones, and those who do may screen calls with the growth in caller identification units. Therefore email surveys partially overcome these problems (Kellner, 2004) and mobile phones are expected to as well. However, the internet has sampling bias because not everyone has access to it as yet. Another problem is that there is no sampling frame for email addresses and so a probability sample cannot be conducted (Sparrow and Curtice, 2004). Mobile phones similarly do not have as high reach as traditional telephones but more people do have access to mobile phones than to the internet.

Kellner (2004) proposes that online research results in more honest answers, however the significance of privacy of information has become a prevalent social concern, and many people may not see the internet in being able to accommodate the high levels of security that they desire with the growth of internet hacking and spy ware (Adam and McDonald, 2003). This may therefore lead to greater dishonesty and invalid data, and so it opens up the need for more secure methods of data collection, such as through mobile telephones.

In terms of practicality, mobile phones are more expensive than landline telephones and email surveys. However, costs for market researchers may be a lot lower than what is available to the general public. Companies offer bulk SMS at significantly reduced prices (Streetdata; BulkSMS), and the costs of mobile telephony are expected to fall in the future (Ninemsn, 2004). For example, Virgin mobile already offers 10 cent SMS to other Virgin customers and 20 cent SMS to other networks, compared to the standard 25 cents offered by other carriers (Virgin mobile, 2002). Costs are merely a short term concern, which may impede the implementation of mobile phone research at the present; however this is of less significance when evaluated in comparison to the benefits that it may have to offer.

The specific survey design factors that have been researched in the past include the length of questions, types of questions (open ended versus closed responses), incentives offered, (monetary or competitions etc), eye catching displays, language that is easy for the respondent to understand, and the entertainment value of messages. (Helgeson, Voss, and Terpening, 2002; Tse, 1998; Chittenden and Rettie, 2003; Barwise and Strong, 2002). Nevertheless, the findings have been contradictory, especially in terms of pre-notification and non-monetary incentives to participate (Kent and Brandal, 2003; Dillman et al, 1993). This study will aim to explore the reasons for these contradictions.

Respondent demographics in one study were found to override the creative content and layout of surveys (Chittenden and Rettie, 2003). Respondents to email surveys had more understanding of technology and the internet. They used email more often and have been using email for a longer period of time. (Ranchhod and Zhou, 2001) Mobile phone research may only be suitable for more technologically adept respondents, or younger individuals with higher income levels, (as these
demographics are characteristic of internet and mobile phone users (ABS, 2004)); however it may
be useful if used to obtain quota samples when it is harder to contact these people.

**Decision making theories**
The way that respondents make their decision to participate in marketing research has also been
studied to understand how to manage the process and encourage higher response. Several theories
exist in relation to research participation such as social exchange theory where the benefits of
participating must exceed the costs; dissonance, where the respondent participates to reduce
feelings of guilt associated with non-response; self perception, where the respondent views
themselves as a socially responsible person and thus should take part in research; and
commitment, where the respondent feels some sort of obligation to take part (Han et al, 2003;
Evangelista et al, 1999; Helgeson et al, 2002). These have been identified based on mail and
email surveys however they have not been applied to mobile phone surveys, and the ambiguity
arising amongst the different options could be reduced through a careful evaluation of the exact
decision processes that individuals go through, and in which situations each decision takes place,
that is, it may depend on personal cognitive or situational factors.

**Marketing via mobile phones**
Mobile phone surveys via SMS and WAP (Wireless Application Protocol) are currently being
conducted by marketing research agencies around the world. (Midray, Mori, Wireless Opinion).
In Finland, mobile coverage is extremely high, even surpassing the coverage of fixed line
telephones. Mobile phone surveys are being conducted by some research companies and the
results have been increases in the costs of surveys, but responses are of a much higher quality
(Sisplet, 2004). Self administered surveys via SMS are expected to surpass web based surveys
with advances in technology which increase screen usability. Short SMS surveys have been found
to be very cost effective presently with above average response rates and positive feedback from
respondents (Association for Survey Computing, 2004). In Australia, research company AC
Nielsen also uses WAP and SMS to conduct surveys (AC Nielsen, 2004).

Probably the most significant academic contribution to the area of marketing via mobile phones
has been the work of Barwise and Strong (2002) who researched the effectiveness of permission
based mobile advertising. The results of the study were encouraging for the area of mobile phones
as they found that recall was high with a short dropout rate of only 2% in the short term, and in
regards to frequency, 3 messages a day was acceptable. Furthermore, it was more suitable for
convenience goods rather than durables. Other case studies have included Top of the Pops in the
UK using SMS to build databases of teenage customers in a relationship marketing context, (De
Kerckhove, 2002) as well as joint promotions by 20th Century fox and Vodafone via mobile
phones (Jones 2002). Both these campaigns were very successful and they may be transferable to
the marketing research context.

**Diffusion of innovation**
Once issues that should be considered for the implementation of mobile phone surveys have been
identified, it is necessary to understand what factors will influence whether this idea will be
accepted within a sample by looking at past diffusion of innovation literature.
Diffusion is “the process through which an innovation, defined as an idea perceived as new,
spreads via certain communication channels over time among the members of a social system”
(Rogers, 2004: 13).

In the 1960’s Rogers was the first to systematically integrate the past diffusion literature to
provide a general framework for diffusion theory. (Rogers, 2004; Lowrey, 1991)
The generally accepted diffusion theory postulates that the adoption of a product, technique or idea, follows an S-shaped curve, as it is cumulatively accepted over time (Rogers, 1976; Pae and Lehmann, 2003; Shih and Venkatesh, 2004). It is expected that mobile phone surveys will follow this curve. Along the stages in the diffusion process, distinct groups of adopters can be identified including innovators, early adopters, early majority, late majority, and laggards (Shih and Venkatesh, 2004).

The factors impacting on adoption include the personality traits of adopters, socioeconomic factors, interpersonal channels and mass media influence, and perceived attributes of the innovation itself. The innovation’s attributes include (1) relative advantage, if the mobile phone is relatively more advantageous than emails, this research method will be diffused; (2) compatibility with current needs, especially the need for portability which fits in with fast paced lifestyles; (3) observability, when it is seen by other people it is more likely to stimulate discussion and thus diffuses more quickly; (4) complexity, mobile phones may be more complex than emails depending on what respondents are used to; (5) trialability, which is also high for mobile phone research because respondents are able to unsubscribe at any time (the law requires that messages are solicited and have an identifiable sender so that they may unsubscribe) (Scaleplus, 2004). (Vishwanath and Goldhaber, 2003; Wei, 2001).

It is argued that adopters have distinct personality traits and socioeconomic status, although this does not apply in all situations. A laggard in one product category may be an innovator in another product category, but a laggard is typically considered to be traditional and an innovator is venturesome, thus ambiguity arises (Lowrey, 1991). Rather than using personality and demographic variables to distinguish between adopter categories, it may be more appropriate to consider previous usage and future intentions for use of the new innovation. This will be explored in the current research study.

The factors impacting on adoption imply that a pro-innovation bias exists. But these factors may be insignificant if it is an idea that is viewed negatively (Lowrey, 1991). In the case of mobile phone research, it may be that the personality traits of adopters will be the opposite of those that adopt standard innovations. This gap in the literature may point towards the need for a mediating factor which may be the social acceptability of the innovation. This will be explored in the present research study.

More recent developments in diffusion theory have included a focus on individuals’ previous knowledge of the innovation and related product categories. In a study by Moreau et al (2001), it was shown that knowledge of the target product and related product categories had an effect on the rate of adoption for a continuous innovation. However, they failed to explain what the case is for a discontinuous innovation, as this would be relevant to the diffusion of mobile phone research, leading to a gap in the literature which this study aims to fill. This may have implications for the present research study in which participants that have knowledge of both mobile phones and of market research may be more inclined to participate in the discontinuous innovation of mobile phone surveys (where a discontinuous innovation is defined as a new technology requiring a change in behaviour (Lowrey, 1991).

While the established diffusion literature explains many of the factors leading to adoption, there also needs to be an emphasis on how people use the innovation once it has been adopted (Shih and Venkatesh, 2004). The diffusion rates of mobiles may be high however their use may be very limited, with relatively few people using the full features such as SMS and MMS and taking advantage of all the technology that it has to offer. The use-diffusion literature fails to explain the link between the type of usage that consumers currently have, and the type of usage that they will have for a new service.
Interaction with mobile phones
The way that individuals interact with their mobiles may be an indication of the difference in likelihood to participate in mobile phone research. Several uses have been identified for mobile phones including: fashion/status (to keep up with fashion and to look stylish), affection/sociability (to communicate with loved ones), relaxation (to pass the time), mobility (to avoid the hassles of public telephones), immediate access (to be available to others at all times), instrumentality (for business purposes), and reassurance (a sense of security) (Leung and Wei, 2001). These categories were condensed to form broader classifications in a study by Ozcan and Kocak (2003). In other research, consumption has been classified into consuming as experience, as play, as classification and as integration. (Fitzgerald and Drennan, 2003) These may be even broader classifications for the previous categories identified. Nonetheless, the type of usage that facilitates higher interest in mobile phone research should be explored, and adjustments could be made to the existing usage theories to account for this new usage situation.

METHODOLOGY
Since this study is exploratory in nature, focus groups are considered to be appropriate. Focus group interviews with 6 participants each will allow for more creativity and flow of ideas than in an individual depth interview but with a relatively small number of participants, there will still be some control in that everyone will have more of a chance to voice their opinions. Individual depth interviews were considered, although they were deemed to be less superior to focus groups for the purposes of this research. Individual depth interviews may be more appropriate for socially sensitive topics (Morgan, 1996) but the subject of mobile phone research is suitable for group interviews. While there are different interpretations of the meanings and functions of a focus group, in this study it will be used as a controlled discussion amongst participants rather than a moderator led multiple-interview, as that would defeat the purpose of using the focus group method (Smithson, 2000).

Focus groups have the advantage of ‘safety in numbers’ and so respondents feel more comfortable in expressing their opinions as they have support from others. Participants are also able to be more candid in their responses as they feel more comfortable when supported by other people similar to themselves, this also allows for them to express their latent motives more easily than in an individual interview (Goldman, 1962). Another advantage of focus groups is that they encourage interaction and synergy amongst members and it allows for greater validation of responses. The strength with which respondents hold attitudes is tested, as they are forced to explain themselves to the other group members (Morgan, 1996; Goldman, 1962).

They also allow for participants (and the moderator) to be more involved in the task when they have more people around them. (Lautman, 1982). The number of participants in focus groups varies from 6-10. However, this depends on the topic, the type of respondents, number of groups, and the length of the agenda, and since the agenda for this discussion is quite long, keeping the number of participants quite low is pertinent. It is also recommended to use fairly homogenous participants but the respondents should cover a wide diversity of experience with the topic (Lautman, 1982).

The focus group interviews will be coupled with observational techniques so that respondents’ motives can be validated through triangulation with their body language and behaviour. 50 students will make up the sample. In the group interviews, questions will be focused on the five areas outlined in the aims and objectives.
The feasibility of mobile phone surveys to respondents will be addressed with questions relating to how they interact with their mobile phones at present, and how they perceive market research in general.

The types of survey design factors that are hypothesised to affect whether respondents will participate in marketing research through their mobile phones include: the types of questions, length, language and display. This will be investigated by asking questions about how they would feel about responding to these types of surveys after undergoing some examples of survey questions via their mobile phones.

The specific content that mobiles are more suitable for will also be explored. This involves looking at the topics of surveys that respondents are concerned with and whether their affinity and knowledge of a topic will affect their likeliness to respond. Also, the types of products or services, that can be the subject of mobile phone surveys and the sensitivity of each will need to be evaluated as it may only be suitable for certain types of goods or services.

Respondent factors such as their experience with technology, social contacts, socioeconomic status and personality traits will be investigated to understand how these affect survey response.

Respondents’ decision making when it comes to evaluating whether to participate in mobile phone surveys will need to be assessed so that the process may be managed more effectively. The relevant theories (dissonance, social exchange, commitment, and self-perception) will be explored to ascertain whether they apply to the mobile phone context. Respondents will be asked how they would base their decision to take part in a survey.

The results will be transcribed, coded and analysed using grounded theory techniques.

**CONCLUSION**

The results from the focus groups in this research study will help to determine whether mobile phones are a feasible medium for market research purposes. This information will be useful for both academics and marketing research practitioners. They will have an understanding of the type of relationship that people have with their mobile phones and be able to design surveys to penetrate this relationship. They will also have knowledge of specific design factors and content that respondents are more likely to react to, as well as the types of respondents that they should target, so that they may implement more effective surveys. The decision process that respondents go through will also be addressed which will allow for effective management of the market research process when it comes to mobile phone surveys.

Contradictions in the data collection literature will be explored qualitatively to uncover the true reasons behind differences in response rates. A contribution will also be made to decision making theories by discovering why respondents use different decision making processes, and whether the current theories should be revised. Diffusion theory will also be extended to discover factors other than demographics and personality which may influence adoption, such as previous usage of similar innovations, and the acceptability of the innovation in society. The diffusion of discontinuous innovations has not previously been researched and thus will be examined in this study. Research on social interactions with mobile phones is relatively underdeveloped and so the theories should also be reviewed to uncover whether new categories of mobile phone use should be formed. Therefore, this study will make a contribution academically as well as giving an overall understanding of the process and to allow for actual mobile phone surveys to be implemented effectively.
REFERENCES

ABS (2004) Information technology usage
http://www.abs.gov.au/Ausstats/abs@.nsf/Lookup/7A537C75581930DFCA256CAE0016342C

ABS (2004) Mobile phone access
http://www.abs.gov.au/Ausstats/abs@.nsf/Lookup/85635921978DF152CA256D97002C8660


Adam, Stewart; McDonald, Heath (2003). “A comparison of online and postal data collection methods in marketing research”. Marketing intelligence and planning, 21 (2).

www.asc.org.uk/EventsSep03/presentation48.ppt


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