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Keywords: online, surveys, panels, communities, research, quantitative

Papers

Online market research: Methods, benefits and issues — Part 1

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Abstract

This paper is an update of one written in 2002, when online surveys had made a significant impact on research in the USA, but were yet to take hold in Europe and elsewhere. This latest paper — part 1 of 2 — describes how online market research has now become a *de facto* methodology for many organizations. It describes the key drivers for growth of online access panels, plus the benefits, issues and applications of the other main quantitative research tools and techniques, including online surveys, river sampling, client panels and databases, and website visitor surveys. Part 2, to be published in the next issue of *JDDDMP*, will describe developments in qualitative online market research.

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Introduction

This article focuses on online quantitative techniques

In 2002, the lead author wrote an article for this publication titled 'Online survey techniques: current issues and future trends'. Nearly a decade later, he looks back at how the market has changed and provides an update of the current and emerging online research methods.

The article is in two parts. This first one concentrates on how online quantitative techniques have developed. The second part (to be published in the next issue of *JDDDMP*) will look at online qualitative and hybrid qualitative/quantitative methods, as well as looking into the future and how research may change again in the next decade.

The online market research landscape: Then and now

In 2002, online market research could be characterized as follows:

- Online surveys were predominant, that is, quantitative research, as opposed to qualitative online research.
- The USA was ahead of the curve compared with Europe in terms of using online surveys for research and the emergence of online panel providers, that is, companies providing online contact sample.

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- There was significant scepticism within the European market research industry about the validity of online surveys.

Almost 10 years on, and the landscape is looking rather different:

Online research has become a *de facto* methodology

- Online research has become a *de facto* methodology for many organizations, replacing more traditional methods such as face-to-face or telephone interviewing.
- Online surveys comprise the majority of online research, but qualitative methods have started to emerge in recent years, particularly online market research communities (helped by the emergence of Web 2.0 and social media technologies).
- Europe has been catching up with the USA, particularly in survey adoption and in the proliferation of online panel providers.
- There is widespread acceptance of online research.

Quantitative online market research

Introduction

Quantitative online market research is the most popular worldwide data collection method

Quantitative online market research has experienced explosive growth in the last decade. It has doubled in the last 5 years to become the most popular worldwide data collection method, according to ESOMAR, and accounts for nearly a third of all market research by value.[1] In this section, we describe the main techniques used to collect quantitative data online, including their benefits and any key issues.

The key issue with online research was always one of where you sourced the sample as there never was (or will be) an open internet email directory of all users. Therefore, techniques are largely distinguished in terms of how the sample is obtained (Table 1).

Online access panels

Definition

The growth in online access panels in the last 10 years has radically changed the landscape of the market research industry. Widespread

Table 1: Online quantitative research techniques

Technique	Description
Online access panel	A pool of registered and profiled people who have agreed to participate in online surveys, created by a panel provider who sells access to market research agencies and brand owners
River sampling	Online survey respondents are recruited in real time using a call to action delivered via online advertising or promotions
Client panel	A pool of registered and profiled people who have agreed to participate in online surveys, created in house by the client/brand owner
Client email database	Email addresses of a group of people who are available for participation in online surveys, which are available to the client/brand owner
Website survey	Visitors to a website are invited to take part in an online survey as they use the website

acceptance of access panels means that online surveys are now the leading data collection technique.[1]

Online access panels are pools of registered people who have agreed to participate in online surveys

An online access panel can be defined as a pool of registered people who have agreed to participate in online surveys. In addition to personal details and various socio-demographic variables, most panel providers also collect a much richer profile of other characteristics, allowing them to easily target minority groups. For example, most will hold information about media consumption and financial services behaviour and ownership.

Typically, participants are invited by email to take part in an online survey, although some panel companies now use SMS text invites and others encourage their members to use portal websites.

Leading providers

There are online access panels in every major market in the world and a number of large specialist global providers exist (Table 2).

In addition, a number of local providers exist (in just one country or region) and some larger full service market research agencies also provide sample for their clients and others to use (eg Lightspeed on behalf of WPP).

There are also specialist panels that concentrate on certain target groups, be they students or medical professionals. These are particularly prevalent in the business-to-business area where general access panels have been notoriously weak at providing quality sample. An example is shown in Table 3.

Key drivers of growth

Increased internet penetration is a key driver of growth

There are a number of factors that explain the growth in online access panels, especially in Europe, which ten years ago lagged well behind the USA. First, *internet penetration*, particularly via broadband, has steadily risen, increasing the potential pool of panel members. For example, 26 per cent of the UK population were internet users in 2000, rising to 83 per cent in 2010.[2] Second, *acceptance* of online surveys as a method has become more widespread. Many in the industry were initially very critical of online as a technique, but a number of studies have alleviated key concerns (although some remain and these are

Table 2: Global online access panel companies

Company	No. of countries covered online	Global panel size
CINT	42	Over 4 million
GMI	47+	Over 8 million (with support of partners)
Lightspeed	24	Over 3 million
Research Now	37	Over 6 million
SSI – Survey Sampling International	54 (31 proprietary)	Over 6 million
Toluna	34	Over 4 million

Table 3: Online access panel survey case study

Client/agency	McDonald's/Virtual Surveys
Objective	A TURF (Total Unduplicated Reach & Frequency) research study was commissioned by McDonald's UK in order to identify the optimum range of products to include in the McDonald's Milkshakes promotional range for the summer of 2009
Method	The research was conducted online, using an access panel of UK consumers. The products included in the study consisted of four current products (chocolate, strawberry, vanilla and banana) and five potential new variants In this study, all concepts were unpriced and were presented as text descriptions rather than images (though images, if available, would always be preferred). Each concept was introduced one at a time, in a random order and purchase interest and frequency obtained, in addition to a few other questions
Outcome	Prior to running TURF, consumers expressed greater interest in a number of new flavours over some of the existing variants in the range. However, taking into account unduplicated reach and frequency, the Cadbury Caramel option was considered the most appropriate new variant to add incremental reach to the range. Subsequently, this was introduced

discussed below). Furthermore, online access panels have some advantages over alternative research techniques, which have also aided their acceptance (see 'Benefits of online panels' below). Third, client *demand* for online surveys has allowed the creation of online access panels that are at last financially viable. An example of an online access panel survey is given in Table 3.

Benefits of online panels

The benefits of online access panel surveys, and thus additional drivers to their widespread adoption, include the following:

Speed, value and improved targeting are key benefits of online panels

- *Faster research*: in general, online surveys can be scripted and fielded much faster than face-to-face and postal surveys and, to a lesser extent, telephone surveys.
- *Niche targeting*: because online access panels consist of profiled members, they are a cost-effective and quick way of reaching a niche audience.
- *Cheaper*: online surveys are usually cheaper than more 'traditional' techniques such as telephone or face-to-face interviewing. The key reason for this is that online surveys are self-completion questionnaires, that is, do not require a human to ask the questions as is the case with face-to-face or telephone (unless automated).
- *Non-customers*: unlike client-supplied sample, access panels allow clients to research both their customers and non-customers.

It can be argued that '*better research*' has been another driver of online access panel growth. In 2002, the lead author wrote that General Mills conducted all of its research offline in 1999, but by 2001 had switched nearly 80 per cent of it to online. A key reason for this

would have been the inferiority of other methods, that is, low response rates and slow results turnaround from mall testing or postal panels. At present, alternatives to online still suffer from drawbacks, possibly now even more severe. For example, young people are harder to reach via the telephone, and working adults harder to reach face to face. In addition, Burke, in 1999, cross-validated 50 BASES projects before switching completely to online in the USA.[3] He found:

- High correlations on all key measures (0.85–0.94).
- Higher test/retest reliability than conventional tests.
- Differences seen: lower claimed frequency of purchase, slightly more discrimination on purchase intent, more open-ended response (especially dislikes).

Computer-aided intelligent routing and rich media question types in online surveys can lead to a more engaging research experience, producing more accurate results. (Although long and poorly designed, online surveys can have a negative impact on quality — more of this below.)

Issues with online access panels

Variable results have led to quality improvement initiatives

Although there can be clear benefits in using online as a data collection method, there is still a strong debate raging in the industry about the quality of data collected via online access panels. The debate became high profile in 2006 when Kim Dedeker, Procter & Gamble's VP Global Consumer Market Knowledge at the time, described how a survey fielded twice with the same panel had generated two distinctly different results. A year later, at the ESOMAR Panel Research Conference, Jon Krosnick from Stamford University claimed that online access panels (versus telephone):

- have more self-selecting samples that over-represent people interested in the topic,
- give more variable results between suppliers, and
- produce trends over time that are less related to market.

What could be the cause of some of the issues? Studies have shown that it is unlikely to be related to panel size (above a certain size) or response rates. However, varied recruitment from panel to panel is probably a key driver for the problems highlighted, that is, who is recruited and how (source, incentives offered, etc).

A positive result of the criticism of online access panels was the development of a number of industry initiatives to understand and improve panel quality. The Advertising Research Foundation's (ARF) Online Research Quality Council has found that a study fielded with the same panel would generally produce the same result. However, a study fielded with different panels could produce different results.[4] Therefore, for any buyer of panel services, it is important to understand the quality standards and processes a provider has in place. An

initiative to aid this assessment, and raise standards, has been ESOMAR'S '26 questions', that any reputable panel provider should be able to answer satisfactorily.[5]

Issues with professional respondents

Technical initiatives aim to combat problem survey responses or respondents'

There is also evidence and criticism that 'professional' survey respondents exist. The author, in 2005, found that three-quarters of panel members belonged to three or more panels. These multi-panel participants hungrily sought to complete a few interviews a week. Comscore Networks reported in 2006 at the Council of American Survey Research Organizations that less than one per cent of respondents in the ten largest online survey panels in the USA completed 34 per cent of the questionnaires. However, it is likely that only a small proportion actively defraud surveys, that is, not reading questions properly, 'straightlining' responses or cheating the survey recruitment criteria by, for example, claiming they own something that they do not.

There are a number of efforts, implemented by panel companies and research agencies, which are aimed at combating 'problem' survey respondents or responses. For example:

- Analysis of meta-data — for example, the removal of fast and inconsistent surveys.
- Initiatives such as Puresample.com by GMI, a data repository of email addresses associated with panellists exhibiting low-quality or fraudulent response data.
- Quality systems such as Optimus, a digital fingerprinting technology that identifies and flags suspect respondents.
- Using geo-IP checks.

Digital fingerprinting and geo-IP checks work by examining the web page requests made by the respondent's browser. From these, it is normally possible to determine with a reasonable level of accuracy where in the world they are. This has led to the removal of fraudulent panellists living in Third-World countries, but pretending to be residents of the USA, UK, etc.

Digital fingerprinting takes this a step further by using additional characteristics of the respondent's PC such as operating system and Flash Software version to allow panel owners to construct a fairly unique digital 'signature' for each respondent. This then allows panel companies to monitor whether respondents have completed surveys more than once (under a different username for example) or even finished the same survey already, but with a different online access panel.

Issues with sample representativeness

It is likely that access panels may not be psychographically representative

There have also been concerns about the sample representativeness with online panels (over and above professional respondent issues). It is argued that probably only 5–10 per cent of the population would ever join an online panel, and thus they cannot be representative. Furthermore, many of the recruited panel members have joined

by ticking (or often not unticking) website opt-in/opt-out boxes when applying for other services. Others have been recruited from competition websites or general email databases.

Access panel owners would argue that their panels are representative in terms of demographics (or they can draw representative demographic samples from them). However, it is quite likely that some may not be pyschographically representative. For most surveys, this may not matter much, but it could for some surveys (eg on the prevalence of competition taking).

Issues with interviewing children online

Survey invites for children are usually sent via a parent or guardian

Most research codes of conduct have clear rules about not interviewing children without parental permission. In the online world, this can be more difficult to achieve and also verify that those you are talking to are adults (and not children).

It is still an issue to get good samples of children with online methods. Online panels have mainly offered solutions to this by encouraging their adult members to act as portals for the children, for example survey invites get sent to the adults who then pass them on (with their permission) to their children. It could be questioned though how representative these children are who are willing to do what their parents ask!

Issues with online surveys

Long and poorly designed surveys cause lower response rates

In addition to issues with online access panels themselves, there has also been a healthy and ongoing debate about the main tool used on panels — the online survey. In particular, long and poorly designed surveys have, quite rightly, been blamed for:[6]

- lower response, leading to less good samples, that is, biased and unrepresentative,
- higher attrition, leading to increased panel management and sampling costs,
- lower engagement with the survey questions, leading to lower quality answers and results.

In addition, as cited in the lead authors' original article in 2002, survey design plays a very important role in engaging respondents, encouraging honest responses and full survey completion. Key factors that need to be considered when designing a survey are:

- *Interview length*: ideally, kept short, that is, 5–15 minutes. Longer surveys result in higher abandonment and, as a consequence, potentially skewed results.[6]
- *Question types*: Avoid complication and repetition. In addition, where possible, avoid grid questions — these are the main question types that lead to erosion of response.[7]
- *Question look/feel*: Jon Puleston of the online panel provider GMI has written a number of papers on the subject of survey

enhancement, mainly using Flash technology.[8] The impact of using Flash can be significant:

- reduced straightlining by 80 per cent,
- increased enjoyment score from 3 out of 10 to 8 out of 10,
- significantly increased …
  - time spent answering questions,
  - the length and depth of responses to open-ended questions.

More recently, Lightspeed published the results of usability and eyetracking tests on survey respondents. This showed that many people looked first at the answers and then may or may not read the questions in detail. From this, they suggested that there should be a 'Twitter test' with no question ideally longer than 140 characters to ensure it is read.[9]

Peak Panel

Panels face member acquistion and retention problems

The lead author proposed a theory back in 2007 that the panel industry would at some point in the near future start to suffer from 'peak panel'. His idea was that the availability of respondents on access panels would be like oil reserves. It would rise initially very quickly, but due to attrition (following bad surveys, etc.) the number would eventually decline like a bell-shaped curve, as there was a limit to the number of people who would ever want to join such a panel to replace them (see Figure 1).

Against this trend, demand for online panellists has continued to grow over time, so there would come a point when demand exceeded supply and that very quickly would then deteriorate to a major lack of supply.

The theory has recently been revived in 2010 as many panel companies appear to be starting to face the problems foretold. Researchers are now starting to use other sources for sample — discussed below — and thus there is currently no major problem for the industry, but it is quite likely that within a decade the use of access panels may be substantially less than it is now.

River sampling

Definition

River sampling is where respondents are recruited live using online ads and promotions

In 2002, and the previous paper, the lead author highlighted a new method called Random Web Interviewing. This approach has now become known in the industry as 'river sampling', where research

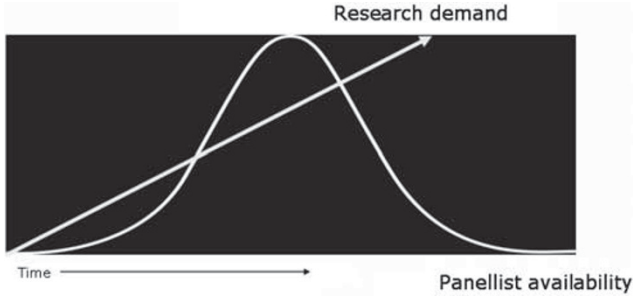

Figure 1: 'Peak panel' bell curve

respondents are recruited using online adverts and similar instant 'capture' promotions and assigned to surveys — a flowing river of research respondents.

Benefits

The key arguments made in favour of river sampling, by companies such as DMS Research, is that it provides a 'fresh' sample of survey takers, compared with the repeatedly surveyed members of most online panels.

Issues

The arguments against river sampling tend to be centred on representativeness and self-selection. An article by Dr. Charles DiSogra, 'Knowledge Networks', in 2008 concluded that a validity study by DMS Research showed that river samples are "new", and "random", but they are not representative of anything.[10] And the value of respondent "newness" on its own for research is questionable, if non-existent. This finding has been mirrored (in part) by the ARF's 'Foundations of Quality' project that has suggested that the number of surveys someone completes is not an issue (a relief for most online access panel providers!).[11]

Client email database or panel

Client email databases or panels can provide a cheaper and faster research solutions

Introduction

Online access panels and river sampling give research buyers access to sample to conduct research, but they have to pay a third-party provider for the privilege. However, with the growth in the use of the internet to communicate with consumers, many companies now have email databases of customers (and sometimes also non-customers), which represent another source of sample for certain research projects, particularly customer experience studies, but also new product development and communications development research. An example is shown in Table 4.

Definition

A client *panel* is a pool of registered and profiled people — usually customers — who have actively agreed to join the panel in order to participate in online research. A client email *database* is just that, that is, a list of customers who they may use to contact for research, but may not have opted specifically to do so. Furthermore, they are also typically not profiled in any way.

Benefits

The key benefits of using in-house resources to conduct research include:

- *Cost*: no need to pay an access panel provider for use of their sample.
- *Speed*: no need to spend time in outsourcing sample provision.

Table 4: In-house panel case study

Client/agency	ITV/SKOPOS
Objective	ITV had been running a GMTV viewer's panel using postal surveys since 1995. However, by 2003, diminishing member numbers, diminishing response rates, an older age skew led to the creation of an online panel called 'ViewBack', managed by SKOPOS.
Method/usage	The online panel was recruited from the existing panel, plus the gm.tv website (in 2003). A new recruitment drive in 2010 used newsletter sponsorship, social networks and mums from another panel. ITV aims to encourage response by providing feedback on results, but also holds a quarterly prize draw, with a top prize of £300. The ViewBack Panel is used to answer a variety of research issues, including pre and post ad/brand awareness, evaluation of advertising creative, rating of presenters and features and ideas for programme content.
Learnings	In a presentation at a Market Research Society (MRS) training course in November 2010, Anna Spencer, Senior Research Analyst, ITV, said that the set up of the panel took longer than thought, plus day-to-day management is more time-consuming than anticipated. In addition, she also warned against creating too much data ie the panel needs to be focused and manageable in terms of what members generate in response to questions.
Outcome	The ViewBack panel has provided ITV with significant advantages over and above its previous offline incarnation ie bigger samples, better response rates, faster response times, cheaper, adds value for ITV's advertisers and provides a continuous dialogue with its audience. In the future, ITV is considering developing ViewBack to incorporate sub panels, a dedicated member's website, plus online qualitative research elements.

- *Control*: the sample is owned by the client who can thus control how and when it is used.
- *Data fusion*: many clients combine research projects with customer database enhancement exercises or even CRM.

The key benefit of an in-house *panel* over a *database* is that panel members will be primed to take part in research and thus more likely to do so (rather than being contacted 'out of the blue'). In addition, as part of the panel-creation process, recruited members will have answered profile questions, which allows for more targeted sampling and greater scope for analysis (if requested).

Issues

There are a number of key issues that brand owners should consider before using an email database or, in particular, creating a panel for research:

- *Representivity*: it is likely that those responding to surveys or registering on a panel will not be typical of the wider customer base. As such, care should be taken to understand and control the profile of those engaging in research, including potential biases.

- *Management*: managing a database, and a panel in particular, can be time-consuming and costly. Brand owners need to understand whether they have the in-house resource necessary to effectively manage the database/panel on an ongoing basis. Of course, if internal resourcing is an issue, panel management can be outsourced to a research agency.

Website survey

Introduction

Website surveys elicit visitor profile and satisfaction data

The lead authors' original article in 2002 discussed how hosting surveys on a client's website got around the main problem that was plaguing online research at that time, that is, limited sample. As highlighted above, the rise in online access panels and the increased availability of clients' email sample have had a huge impact in terms of solving the online sample challenge and, as such, website surveys are not particularly being used for general research surveys anymore. An example is shown in Table 5.

Definition

Website-hosted surveys have evolved to being largely used to understand websites, in particular visitor profiling and satisfaction. Profiling studies focus on understanding who is coming to the site and why. Satisfaction studies take this questioning further by investigating the visitors' views of the website and the degree to which it satisfied their needs.

The majority of website visitor surveys are now conducted using an overlay methodology, which involves bringing up a survey in a new window as the person surfs a website. It is a relatively intrusive method that forces the user either to fill out the survey or to close the window. However, because it is so intrusive, it can achieve relatively good response rates.

Issues

There are a number of key issues that need to be borne in mind when designing and initiating a website visitor survey:

- *Tailored invite*: the invitation has a huge role to play in response rates. Here are some key rules of thumb:
  - It is crucial that the visitor realizes the survey is being run by the website owner, branded in line with the site (eg fonts, colours, etc).
  - The invite needs to be honest about what is expected of the respondent and how long the survey will take to complete.
  - Keep the invite short and succinct.
- *Survey triggering*: if possible, the survey should be launched and taken after the visitor has had a chance to fully experience the website, but before they move on to another site or task. Although technically difficult to trigger on exit of a website, one option is to trigger it after a period of time so as to avoid the annoyance of seeing it on site entry.

Table 5: Website visitor survey case study

Client/agency	COI and Directgov/ Virtual Surveys
Objective	Directgov/COI wanted to understand how it could improve Directgov (http://www.direct.gov.uk/), the website of the UK government. In particular it was keen to understand visitor experience with regard to content and design, including navigation.
Method	A website visitor survey was triggered to visitors to the Directgov website, timed to appear after 2 minutes of someone entering the site. In this way, the visitor (particularly first time visitors), is able to experience the website before being asked to complete a survey. 2,000 interviews were conducted per wave and the survey was designed to be a fully compliant survey in terms of accessibility eg for those with impaired sight.
Outcome	Ongoing analysis identified key website development priorities. In addition, KPI's allow for the tracking of key measures across time.

- *Survey length*: it should be remembered that the survey interrupts the browsing experience, and thus should be kept as short and relevant as possible, that is, ideally just a few questions and no more than five minutes.

Keeping to these rules negates the need to offer incentives; in fact, we know that not only will offering incentives have minimal impact on response rates, the data quality could be compromised, for example by respondents chasing the prize and completing the survey too quickly and without thought, or attracting non-users who just come to the website to fill out the 'prize draw form'.

Recent developments

Much of the above was relevant when the lead author wrote his original paper in 2002. Since then, the only change has been in response rates that have declined a little – although are still normally in the range of 10–20 per cent (if triggered carefully).

In terms of other recent developments, the most obvious is the role played by web analytics, which has been more frequently linked to survey data. Web analytics are the data captured from the website server about an individual's visit to a particular site. The data will capture stages of an individual's journey around a site, including time spent per section. In most cases, the data are collected by a third party and it has become a key element of the analysis for the site owners' web team.

Another growth area is that of the mobile web, and survey solutions that are optimized for this platform are starting to emerge. Most are based on similar technology. However, the growth of phone apps is leading to a new generation of usage surveys embedded directly within the software.

Concluding comments — Part 1

Online research has come of age

As can be seen, online research has come of age over the last decade since the previous paper was published. It has been transformed into

the dominant data collection method worldwide for the industry, and there are now a number of valid solutions for sample.

In the second and concluding part next month, we will look at online qualitative techniques and hybrid ones (mainly involving social media), which are now at last beginning to make serious inroads into the market. We will also look at some techniques that will affect the industry over the next decade — of which mobile interviewing is likely to be the most important.

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