

**Best Practices in Mobile Survey Design:  
The Impact of Mobile Phones**

**White Paper**

Prepared by:



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## I. INTRODUCTION

While the market research industry has been increasingly relying on research via online surveys, making these surveys compatible with smartphones and other portable, Internet-enabled devices has proven to be a challenge. Although more and more respondents opt to complete surveys on these devices, respondents using these devices are also more likely to drop out of surveys before completion. This can be attributed to a variety of factors, including:

- Limits in cell phone coverage;
- Limited data plans;
- Respondents more likely to be in a situation where they might become distracted or have limited time; and
- Questionnaires being too cumbersome to complete on a smartphone, or not being designed for completion via handheld device.

Surveys have traditionally been programmed to include multi-point scales in a grid format, a design that is not ideal for smartphones as screens are not large enough to display the full grid as it's designed.

This white paper details the industry-wide issues relating to drop-offs among smartphone users, provides best practices in mobile survey design, and offers actionable solutions for researchers utilizing traditional grid surveys to minimize drop-outs, to understand who is dropping out and when, and to make traditional grid surveys more user-friendly for those completing on a smartphone.

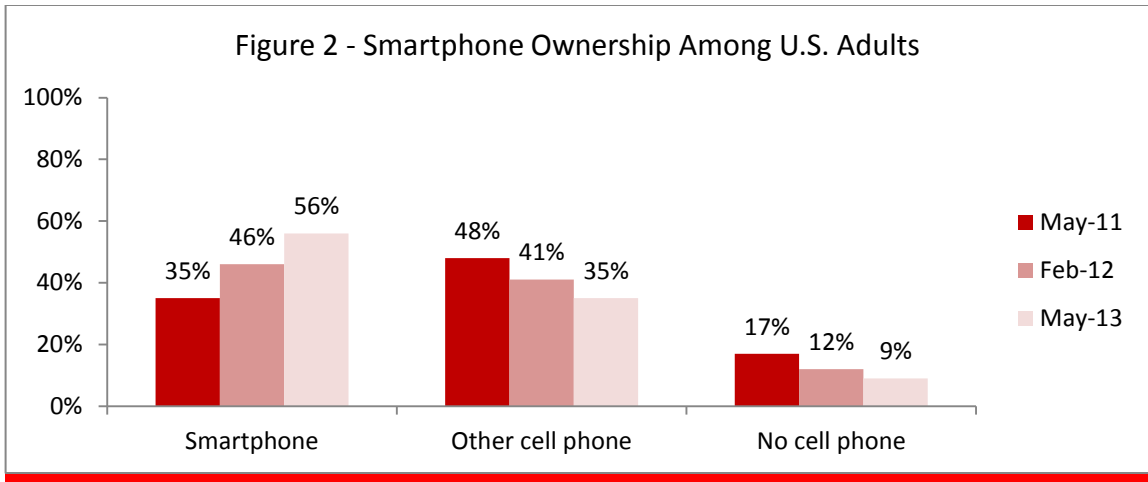
## II. TRENDS IN MOBILE BROWSER USAGE

According to a meta-study of data provided by web survey solutions provider Kinesis Survey Technologies, LLC, in the first quarter 2013, 26% of U.S. traffic for online surveys occurred via mobile browsers (note that "mobile browsers" includes both smartphones and tablets).<sup>1</sup> Interestingly, this represents a slight decrease in the proportion from the third quarter of 2012, although the presence of smartphones and other devices over the same time has grown. In fact, 56% of American adults are smartphone owners as of May 2013, up from 46% in February 2012 (see Figure 2, next page).<sup>2</sup>

Figure 1 – Type of Survey Traffic <sup>1</sup>	Q1 2012	Q3 2012	Q1 2013
Mobile browsers	25.51%	30.74%	26.26%
Desktop browsers	74.49%	69.26%	73.74%

<sup>1</sup> *UPDATED with Q1 2013 Data: Online Survey Statistics from the Mobile Future. Kinesisurvey.com. Kinesis Survey Technologies, 2013. Web. 19 Sept. 2012. <[http://www.kinesisurvey.com/wp-content/uploads/2013/09/UPDATED\\_OnlineSurveyStatistics\\_MobileFuture\\_KinesisWhitepaper.pdf](http://www.kinesisurvey.com/wp-content/uploads/2013/09/UPDATED_OnlineSurveyStatistics_MobileFuture_KinesisWhitepaper.pdf)>.*

<sup>2</sup> *Smith, Aaron. Smartphone Ownership - 2013 Update. Pewresearch.org. Pew Research Center, 5 June 2013. Web. 19 Sept. 2013. <[http://www.pewinternet.org/~media/Files/Reports/2013/PIP\\_Smartphone\\_adoption\\_2013.pdf](http://www.pewinternet.org/~media/Files/Reports/2013/PIP_Smartphone_adoption_2013.pdf)>.*



Given that approximately one in four surveys are accessed on a mobile browser, these users represent a significant proportion of those being surveyed. Not surprisingly, given the often cumbersome nature of taking surveys via mobile devices, the rate of drop-outs is much higher on mobile browsers, with 68% of these users dropping out of surveys before completion. Conversely, the drop-out rate is much lower among those using desktop browsers (14%).<sup>4</sup> The higher drop-out rate of those using mobile browsers affects the completion rate, with only 15% of those on mobile browsers actually completing the survey, compared to about 40% of those using desktop browsers.

**Figure 3 – Disposition Rates by Type of Brower Used – Q1 2013<sup>4</sup>**

	Drop-out	Terminate (did not qualify)	Terminate (full quota group)	Complete
Mobile browsers	68.35%	12.73%	3.87%	15.04%
Desktop browsers	14.48%	34.84%	10.44%	40.24%

<sup>3</sup> Smith, Aaron.

<sup>4</sup> *UPDATED with Q1 2013 Data: Online Survey Statistics from the Mobile Future.*

### III. BEST PRACTICES IN MOBILE SURVEYS

#### 1. Table Structures

Given that the average smartphone screen is between 4 and 5.5 inches (diagonally) in size, there is very limited space on which to display tables<sup>5</sup>. The use of tables is typically discouraged because it is often not possible to make the table fit on the screen in a readable size. Rather, it is suggested to use a different screen for each question or attribute; though this is a method best used on shorter surveys to avoid respondent fatigue (clicking through more and more pages can increase the likelihood of respondents becoming annoyed and dropping out).<sup>6</sup>

Figure 4 – Screen Sizes of Popular Smartphones<sup>5</sup>



Galaxy S 4	HTC One	iPhone 5	Optimus G Pro	BlackBerry Z10	Xperia Z	Nexus 4	Galaxy Note II
5"	4.7"	4"	5.5"	4.2"	5"	4.7"	5.5"
x 1920 x 1080	x 1920 x 1080	x 1136 x 640	x 1920 x 1080	x 1280 x 768	x 1920 x 1080	x 1280 x 768	x 1280 x 720
441ppi	468ppi	326ppi	401ppi	355ppi	441ppi	318ppi	267ppi

#### 2. Question Types

It is recommended that the question types on mobile surveys be limited to radio, drop-down, checkbox, and open-ended questions, as these generally work better on smartphones as well as feature phones (mid-market phones which typically have Internet accessibility, but do not have all the high-end features of smartphones). Adding any additional, more technically complex question types may make the program incompatible with feature phones.<sup>6</sup>

<sup>5</sup> Shanklin, Will. "Smartphone Comparison Guide 2013." *Gizmag.com*. Gizmag, 25 Apr. 2013. Web. 19 Sept. 2013. <<http://www.gizmag.com/smartphone-comparison-2013/27259/>>.

<sup>6</sup> *Evolving Best Practices in Mobile Surveys and Online Administration*. Kinesissurvey.com. Kinesis Survey Technologies, 2011. Web. 19 Sept. 2013. <[http://www.kinesissurvey.com/wp-content/uploads/2013/09/MobileSurveyBestPractices\\_KinesisWhitepaper.pdf](http://www.kinesissurvey.com/wp-content/uploads/2013/09/MobileSurveyBestPractices_KinesisWhitepaper.pdf)>.

### 3. Question text

Because of the smaller screen typical to mobile devices, it is recommended that, “questions and response options should be written as concisely as possible to optimize the limited display.” Doing so minimizes the amount of scrolling needed and in turn, can minimize respondent fatigue.<sup>7</sup>

### 4. Branding

The smaller screen on mobile devices also limits the amount of space available for logos and any other branding, as they can take up room, limiting space for questions and potentially frustrating respondents. Because of this, it is generally suggested that branding should be minimal on each page, leaving most of the screen for questionnaire content.<sup>7</sup>

## IV. RECOMMENDED EDITS TO TRADITIONAL GRID SURVEYS

There is not yet a single or series of solutions that will completely resolve the barriers to completing online surveys via smartphones. After careful consideration of secondary research and an internal review of programming software capabilities, WBA recommends the following edits to traditional grid surveys to combat the drop-out rates and functionality issues associated with mobile survey completion. While none of these edits will fully resolve all issues, and none will make a smartphone as ideal a platform as a desktop, laptop, or tablet from which to participate, some or all should at least lessen smartphones as an obstacle.

### 1. PROGRAMMING EDITS TO REDUCE AND UNDERSTAND DROP-OUT RATES

- a. **Include a note in the invitation that the survey is best completed via desktop, laptop, or tablet.**

Having encountered similar problems in the past, we have previously included a note within the body of the email invitation cautioning respondents that the survey functions best on a desktop, laptop, or tablet computer. Doing so for traditional grid surveys would encourage respondents reading their invitation on a smartphone to complete the survey on a more compatible device.

- b. **Add a question at the beginning of the questionnaire to see what type of device respondents are using to complete the survey.**

By asking respondents to identify the type of device they are using, we have the ability to track drop-outs based on the Internet device. As mentioned in Figure 3, according to 2013 data, roughly 68% of mobile device users drop out of surveys without completing, compared to about 14% of desktop users. By adding a question to the survey gathering mode of access, we can:

- Better understand if the traditional grid survey access rates and drop-out rates are consistent with those of other programs;
- Learn whether they are using and dropping-out while on a smartphone, tablet, laptop or desktop; and

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<sup>7</sup> *Evolving Best Practices in Mobile Surveys and Online Administration.*

- Have the ability to tell at what point respondents stopped participating in the survey, which will potentially indicate points at which respondents become fatigued or frustrated with the survey, or its programming.

This data may be useful to make adaptations to the program in the future, if it would be beneficial.

## 2. PROGRAMING EDITS TO IMPROVE FUNCTIONALITY

### a. Convert the program to a drop-down list for mobile users.

The traditional grid set up (see Figure 5, below) is useful on desktop, laptop, and tablet computers, but the smaller screens on smartphones create a problem. With most smartphones screens ranging in size from 4 inches to 5.5 inches (Figure 4), the grid used in the traditional questionnaire would need to be very small in order to fit.

Figure 5 – Current Grid Configuration

**wba** RESEARCH **Customer Satisfaction Survey**

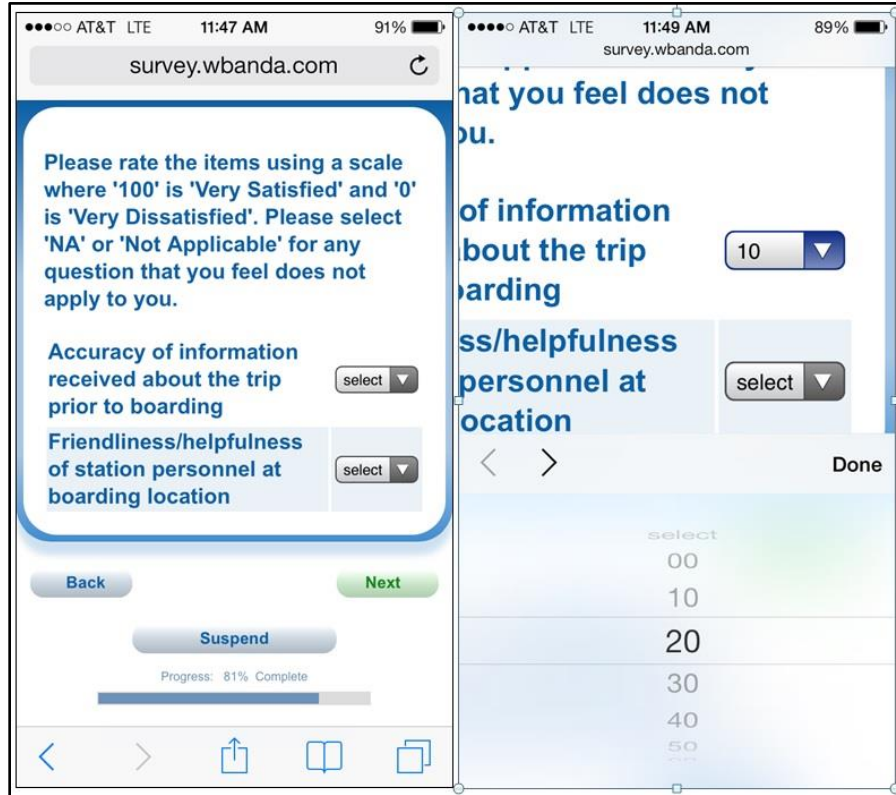
Using this scale where '100' is 'Very Satisfied' and '0' is 'Very Dissatisfied', please tell us how satisfied you were with each of the following aspects of service during your trip. For each aspect of service, select the rating in the boxes below that best describes your satisfaction with the service. Please select 'NA' or 'Not Applicable' for any question that you feel does not apply to you.

	Very Dissatisfied											Very Satisfied
	0	10	20	30	40	50	60	70	80	90	100	NA
At the Boarding Location...												
Availability of station signage/announcements at boarding location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clarity of station signage/announcements at boarding location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal safety at boarding location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ease of boarding process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall cleanliness of the boarding location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall condition of the boarding area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall experience at the boarding location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

One way to work around this issue is to change the list to be a vertical list of ratings 0-100 rather than a horizontal grid. The benefit of this method is that all the punches (0, 10, 20, etc.) can easily fit on the screen in a readable size, but the downside is that the program would either require much more scrolling for the customer, or would mean that only one question could be asked on each page.

To avoid this added burden on respondents, we recommend keeping a format similar to the grid, with multiple attributes on the same page, but convert the horizontal row of ratings to a drop-down list (see Figure 6).

Figure 6 –Drop-Down Configuration on a Smartphone



With this method, respondents simply click a drop-down list for each attribute and select their answer, repeating the process for each attribute. Programming the survey using this method minimizes the burden of having to scroll through long pages, or clicking through and loading unnecessary pages, and more closely matches the set-up of the current version of the questionnaire.

This “smartphone” version of the survey would be set up as a separate program within the program of the traditional grid questionnaire. CfMC WebSurvent, WBA’s programming software, detects the screen size of the device on which the survey is being completed. By using this information, we can set a screen size maximum (most likely 6.4 inches, currently the largest screen size of any smartphone, the Sony Xperia Z Ultra). Any respondents using a device with a screen equal to or smaller than 6.4 inches would see the drop-down box, or “smartphone” version of the program, while any respondents using a device with a larger screen would see the grid version of the program.

**b. Shortening introductory letter, and make headers and logos smaller.**

Although an introductory letter, brand or company logo, and page headers often make a survey more visually pleasing and welcoming on a desktop, these additions can be overwhelming when taking the survey on a mobile phone. We recommend shortening the letter and making the headers and logos

smaller, thus reducing the amount of scrolling required and potentially limiting some frustration of smartphone users.

**c. Shortening instructions so there is less text on the screen.**

The conversion to a drop-box should make it much more user-friendly for those completing on a smartphone. However, one additional edit that should be considered is shortening the instructions. Since nearly all of the rating questions use the same scale, we may want to change the program so the instructions only appear on the first page with ratings questions. The scale is fairly straightforward, so after the first explanation, respondents are likely to understand how to answer questions.

**d. Shortening attributes so there is less text on the screen.**

While the drop-box set up greatly reduces the amount of scrolling respondents will need to do, many attributes will still take up several lines of text on a smartphone. Shortening the attributes will mean fewer lines of text, and in turn, less scrolling.

**V. CONCLUSIONS**

Although there is not a perfect solution to the difficulties associated with making a preexisting survey compatible with smartphones, the edits suggested in this white paper should help to minimize drop-outs and make the traditional grid survey more user-friendly for those completing on a smartphone, while keeping the survey instrument consistent for all respondents.

Implementing the programming changes recommended in this white paper will help you:

- Track drop-outs so you can understand who is dropping out of the survey, and when;
- Encourage the use of desktop, laptop, or tablet computers instead of smartphones; and
- Make the traditional grid survey more functional when completed on a smartphone with drop-down lists instead of grids, and shorter language and images, when appropriate.



## REFERENCES

*Evolving Best Practices in Mobile Surveys and Online Administration. Kinesissurvey.com.* Kinesis Survey Technologies, 2011. Web. 19 Sept. 2013. <[http://www.kinesissurvey.com/wp-content/uploads/2013/09/MobileSurveyBestPractices\\_KinesisWhitepaper.pdf](http://www.kinesissurvey.com/wp-content/uploads/2013/09/MobileSurveyBestPractices_KinesisWhitepaper.pdf)>.

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