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The Effects of Various Incentives and Survey Length on Managers/Executives Likelihood of Completing Online Surveys

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The Effects of Various Incentives and Survey Length on Managers/Executives Likelihood of Completing Online Surveys

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Research Summary

Data obtained from top executives is central to many domains of management (Cycyota and Harrison, 2002). They can provide very useful data to test hypotheses in marketing research, human resource management, organizational theory, and strategic management. Because calls for more data obtained from executives/managers have been increasing, it is crucial to understand the most efficient and effective ways of collecting information from them (Cycyota and Harrison, 2006).

The cost, ease, speed of delivery and response, and ease of data cleaning and analysis weigh in favor of online surveys for research about particular populations that are connected and technologically savvy (Sills and Song, 2002). The internet is gaining popularity as a medium for conducting research, particularly research of a quantitative and survey nature (Atorough, Donaldson and Harris, 2011). While the benefits of undertaking online surveys are numerous, it has been clear that low response rates and representativeness of samples are a major drawback. Overall response rates to online surveys are very low and methods for improving executives’ response rates to online surveys are critical to provide a less biased, more effective, and more efficient way to test many research problems. The major purpose of this study is to discover ways to improve response rates among managers and executives for online surveys.

In this study, 420 managers and executives were asked to indicate how likely they would respond to 10, 20 and 30 minute online surveys with the same incentives to measure the impact of incentives and survey length. In addition, managers were asked to select the one incentive that would most strongly influence them to complete online surveys as carefully as possible.

The study results showed that different types of incentives (survey results, cash, gift card, donations and sweepstakes) would increase online survey response rates compared to no
incentive. Respondents would be more likely to respond to online surveys when cash, a gift card or a donation to a charity are offered. Compared to survey results and sweepstakes, $20 cash, a gift card or a donation to a charity would increase response rates significantly. In addition, the findings strongly showed that survey length is negatively related to response rates for online surveys.

**Introduction**

Executive level opinion is needed to test many research problems. Top-level managers and CEOs are an important sources of information about managerial, strategic, or operational processes and may be the only sources of information for some organizations such as small, entrepreneurial businesses. These executives have extensive amounts of knowledge about internal and external issues related to their organizations and have similar responsibilities and duties (Norburn, 1989). Managers and executives have the greatest insight into organizational practices, choices, and the greatest impact on organizational outcomes (Stubbart, 1989). They can function as a key source of information regarding the processes used to make decisions (Venkatraman & Prescott, 1990; Boyd & Falk, 1996), as well as select and implement strategies (Kumar, Stern & Anderson, 1993; Huselid & Becker, 2000). Data obtained from top executives is central to many domains of management (Cycyota and Harrison, 2002; Cycyota and Harrison, 2006). They can provide very useful data to test hypotheses in marketing research, human resource management, organizational theory, and strategic management. Because conducting research necessitates data collection from an organization’s managers and executives and this activity is becoming increasingly difficult (Regan, 2012), it is crucial to understand the most efficient and effective ways of collecting information from them.
There are a number of ways to gather executive-level data. Secondary sources usually contain demographic data. Personal interviews and other qualitative methods are rich sources of information but these methods do not include large sample sizes, and they are expensive to conduct in terms of time and travel. Paper surveys can create a higher response rate, but they can be costly. On the other hand, online surveys can be a substitute, and they have numerous benefits over paper surveys, particularly in regards to speed and cost efficiency. E-mail provides an easy, convenient, and more immediate means of response (Sheehan, 2001). People tend to provide longer open-ended responses to e-mail surveys (Paolo, et al., 2000), and responses tend to be more candid than responses to paper or phone surveys (Bachman, Elfrink & Venzana, 1999). However, overall response rates to such surveys are declining (e.g. Cycyota and Harrison 2006; Rogelberg and Stanton 2007; Baruch and Holtom, 2008), and methods for improving executives’ response rates to online surveys are critical to provide a less biased, more effective, and more efficient way to test many research problems. The major purpose of this study is to investigate ways to improve response rates among managers and executives for online surveys.

**Literature Review**

Questionnaires are one of the most frequently used data collection tool, but scholars depend on the willingness of people to respond in order to conduct their research. A 100% response rate is rarely achieved for published academic studies (Rogelberg & Stanton, 2007). In fact, average response rates for questionnaires are significantly less than 100% and have declined from 64.4% to 48.4% from 1975 to 1995 (Baruch and Holtom, 2008). Anseel et al. (2010) analyzed 2,307 surveys, covering more than 1.2 million individual respondents, published in 12 journals in I/O Psychology, Management, and Marketing during the period of 1995-2008.
They discovered that differences in mean response rates were reported across respondent types with the lowest response rate reported for executives and the highest for non-working respondents and non-managerial employees. They also found that the effectiveness of response enhancing techniques depended on the type of respondents.

Any level of nonresponse can cause non-response bias in survey estimates (Groves, 2006). While response rate (RR) is not a proxy for study quality, it is an important factor in assessing the value of study findings. Higher response rates tend toward findings that have greater credibility (Rogelberg & Stanton, 2007). Social exchange theory suggests that participation in a survey is determined by value assessments based on the cost-benefit analysis made by a respondent (Dillman, 1978). Cobanoglu et al. (2001) proposed that the use of various incentives in surveys contributes mostly to the cost benefit assessment providing a benefit to the respondent. Helgeson et al. (2002) suggested that an incentive is a determinant in each level of the response process described in Figure 1. Pan, Woodside and Meng (2013) studied response rates to online surveys. According to their study results, researcher and sponsor both have a significant impact on the response rate (significant at 0.001 level), but not the incentive type. Goritz (2006) found that incentives of various types increase online response rates by an average of 2.8% in a meta-analysis. Millar and Dillman (2011) discovered that including a token cash incentive in a postal invitation would increase web response.
Online surveys have been increasingly popular to collect data, as manifested in the growing research of online surveys (e.g., Couper, Blair and Triplett 1999; Dillman 2000; Couper 2000; Crawford, Couper, and Lamias 2001; Sills and Song 2002; Wright 2005, Shih and Fun, 2008, Philbrick, Smith, and Bart 2010, Pan, Woodside, & Meng 2013). Web based surveys have been used by many researchers in a variety of fields, such as education (Kwak and Radler 2002; Shannon and Bradshaw 2002; Carini et al. 2003; McCabe 2004), business (Truell, Bartlett, and Alexander 2002; Roberts, Konczak, and Macan 2004; Shu 2005), and medicine (VanDenKerkhof et al. 2004). The cost, ease, speed of delivery and response, and ease of data cleaning and analysis weigh in favor of the internet as a delivery method of survey research for particular populations that are connected and technologically savvy (Sills and Song, 2002). In addition, data can be collected continuously, regardless of time of day and day of week without geographical limitation (Fleming and Bowden, 2007). Traditional methods of gathering data from study subjects including paper and pencil questionnaires, face-to-face and telephone interviews, increasingly fail to generate qualitatively good results within the financial parameters (Van Gelder, Bretveld and Roeleveld, 2010).
Research about response rates among web and mail surveys revealed inconsistent results because the different contexts of individual studies influence their response rates (Tse-Hua and Xitao, 2008). Fricker and Schonlau (2002) studied response rates between web and mail surveys. They reported that the raw percentage difference between web and paper survey response rates could range from 4% to 92%. Literature about survey response rates also indicates that the type of population surveyed significantly affects the response rate (Heberlein & Baumgartner, 1978; Baruch, 2000; Cook et al., 2000; Shih & Fan, 2008). For instance, general populations are found less willing to respond than student populations, army populations, or employee populations. Top managers were found less likely to respond than the employees and other managers among the professionals (Baruch, 2000).

Although many researchers use web based surveys to collect data, there is little research on the effect of various incentives on response rates in that domain. Incentives such as gifts, checks, or cash can be included in the survey envelopes in mail surveys. However, researchers who conduct web based surveys normally use incentives that can be easily distributed in the electronic format such as redeemable loyalty points, lotteries, gift certificates, donations to charity, and provision of survey results (Goritz, 2006). Birnholtz et al. (2004) studied the effect of a $5 bill in mail and a $5 Amazon gift certificate via both mail and email surveys. The study results showed that cash led to significantly higher response rates than the Amazon gift certificates in either condition. In line with the findings in paper surveys, post-response incentives in online surveys, such as lotteries, do not substantively help response rates (Porter & Whitcomb, 2003; Goritz, 2006). However, one study found that, in contrast with findings in online surveys, prepaid incentives did not produce significantly higher response rates than post-paid incentives and even no incentive among members in a professional association (Bosnjak &
In another online study, Cobanoglu & Cobanoglu (2003) distributed an email survey to 1,200 randomly chosen managers from members of the American Management Association listed in the organization’s directory. Three hundred managers were randomly assigned to four incentive groups. For their participation, they were given either a luggage tag (LT), a prize draw for a personal assistant (PDA), both a prize draw and luggage tag (PDA+LT), or no incentive (control group). The response rates were 31.4% for the luggage tag group, 20.5% for PDA prize-draw method, 41.7% for the combined incentive group (PDA+LT), and 23.9% for the control group with no incentive. There was a significant difference (p = 0.001) among response rates to different incentive methods, and a combination of incentives was more effective. Literature also shows that the amount of incentives does not improve response rates in a linear way. The amount of incentives and the division of lotteries (several smaller prizes or one large prize) do not significantly change the response rates in both mail or email surveys (Bosnjak & Tuten, 2003; Porter & Whitcomb, 2003; Goritz, 2006).

**Hypotheses development**

Top executives have proven to be a difficult group to encourage to participate in surveys. Using web based modes to reach executive opinions results in lower response rates due to the concerns of internet security, the receipt of spam mail, and the lack of a personal relationship between respondents and researcher (Sills & Song, 2002). Although there are few studies that have directly addressed this issue, initial evidence points to much lower response rates for online surveys in comparison with more traditional paper based surveys (Converse et al. 2008, Shih & Fan, 2008).
Incentives are often used to increase participation in both mail and web surveys. There is substantial evidence that response rates to mail surveys are improved by providing monetary incentives (Huck & Gleason 1974; Armstrong 1975; Fox et al. 1988, Church 1993). There is research on whether incentives are more effective when they are larger or when they are paid in advance of survey participation (Shank et al. 1990; Collins et al. 2000). Shank et al. (1990) reported that immediate cash incentives are more effective. Evidence indicates that pre-paid incentives boost response rates in mail surveys, but post-paid incentives do not (Porter, 2004). Shaw et al. (2001) demonstrated that a US $5 incentive resulted in higher response rates among a community patient sample than a US $2 incentive. In addition, follow-up phone calls increased response rates marginally. Another survey from the health care industry found that financial incentives increase response rates significantly (Wang et al. 2002). Vandermeer (2000) reported that using a telephone card as an incentive had a positive effect on response rates. Cobanoglu et al. (2001) offered a luggage tag to respondents who completed a questionnaire and obtained a 23.4% response rate. Therefore, we propose:

**Hypothesis 1a-d:** Inclusion of (a) a monetary incentive (cash), (b) non-monetary incentives (gifts, donations), (c) sweepstakes, (d) provision of survey results will increase the likelihood of executive response to online surveys.

Executives and managers can be more responsive to the involvement of a partner university or institution as they may be aware that such collaborations may have beneficial effects for their company or organization (Bonaccorsi & Piccaluga, 1994). On the other hand, salience was the only traditional method that was effective in improving survey rates (Cycyota & Harrison, 2006). Although the effect sizes in various studies range from strong to very weak, the length of a survey is generally found to have a negative relation with response rates in both paper
and web surveys (Singer, 1978; Heberlein & Baumgartner, 1978; Yammarino et al., 1991; Cook et al., 2000; Edwards et al., 2002; Walston et al., 2006). Due to the use of various measures in reporting the survey length, including the number of questions, the number of pages, the number of screens, and the time of completing a survey, there is a variation in the effect size (Cook et al., 2000).

Survey length is also another important factor for response rates of online surveys. Cook et al. (2000) and Sheehan (2001) did not find a significant relationship between questionnaire length and response rates in web surveys in their meta-analyses. Crawford, Couper, and Lamias (2001) found that longer announced length (20 minutes) for a questionnaire lasting approximately 20 minutes led to a higher nonresponse rate (67.5%) than when the announced length was shorter (8-10 minutes, 63.4%). However, the break-off rate (starting survey but failing to complete it) was higher when the announced survey length was shorter. Deutskens et al. (2004) did not announce the length of survey in advance, but the respondents were able to infer its likely length from the progress indicator during an online survey. They found lower response rates when the survey length was 30-45 minutes (17.1% response rate) compared to 15-30 minutes (24.5%). In another study, Marcus et al. (2007) reported higher response rates when the duration announced in an invitation email (which corresponded to the actual length) was 10-20 minutes (30.3%) compared with 30-60 minutes (18.6%). In another recent study, Galesic and Bosnjak (2009) manipulated the stated length of their survey (10, 20, 30 minutes) and the position of questions in an online survey. As expected, the longer the stated length, the fewer respondents started and completed the questionnaire.
**Hypothesis 1e:** The expected length of a web-based survey is negatively related to the initial willingness to participate and the response rate of online surveys by executives.

**Research Methodology**

This study is exploratory research because it intends to find the relations between incentives, survey length, and response rates for online survey by executives. Guided by a set of hypotheses and statistical testing, this exploratory study was used to describe relationships and test the effects of one variable on another. Data collected in this study was from primary sources. On the other hand, secondary resources were used to design the study. An extensive literature review was done to determine the need for research and variables. An online survey was used to collect primary data from managers and executives due to its cost, ease, speed of delivery and response, and ease of data cleaning and analysis. The survey consisted of two parts. In the first part, managers/executives were asked to indicate how likely they were to respond to a 10 minute online survey in each of the following situations:

- No incentive
- Provision of survey results
- $20 cash incentive
- $20 gift card
- $20 donation to their choice of charity
- Chance to win an item in a sweepstake drawing ($600 value)

In the subsequent questions, managers were asked to indicate how likely they would be to respond to 20 and 30 minutes online survey with the same incentives to measure the impact of survey length. In addition, managers were asked to select the one incentive that would most strongly influence them to complete online surveys as carefully as possible. The questionnaire portion of the research also included one more question to measure their attitude toward online
surveys compared to paper and pencil surveys. A seven point likert scale was used to scale responses since it is a widely used approach in questionnaires. The survey ended with demographics questions regarding the managers’ sex, age, education, and work related questions. Please see Appendix A for the copy of the survey.

The survey target was managers and executives from the U.S. Randomly, ten states were selected from the Census Bureau regions and divisions of the U.S. (Appendix B for Census Regions and Divisions State FIPS Codes). These states are Rhode Island (RI), Pennsylvania (PA), Wisconsin (WI), Missouri (MO), South Carolina (SC), Nebraska (NE), Alabama (AL), Texas (TX), Arizona (AZ), and California (CA). In addition, the local chamber of commerce in Kearney, NE was asked to participate in this study. An email list of managers/executives was created by using Lexisnexis Academic – Companies (44,000 managers and executives). In addition, managers from Turkey were invited to participate in this study, where a snowball technique was used to distribute the survey. The survey was distributed to 850 local chamber of commerce members and the valid response rate was 13.4% (114 valid responses). The response rate for the national sample was less than 1% (353 valid responses). SPSS was used to analyze survey data. Descriptive statistics, frequency analysis, and cross tabulations (gender effect) were used to determine the strongest incentive for completing online surveys. Pairwise comparisons were used to compare the effect of different types of incentives for 10, 20, and 30 minute surveys. Six types of incentives were test in this study. These are: no incentive, survey results, $20 cash, $20 gift card, $20 donation, and a sweepstakes drawing with a $600 value. General linear model repeated measure analysis was used to determine the effect of different survey lengths on responses rates with specific incentives.
Results

Hypothesis 1a-d: Inclusion of (a) a monetary incentive (cash), (b) non-monetary incentives (gifts, donations), (c) sweepstakes will increase the likelihood of executive response to online surveys.

Table 1: Mean difference of response rates for different incentives (10 minutes online survey)

<table>
<thead>
<tr>
<th>Measure: Incentive Type</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incentive Mean</td>
</tr>
<tr>
<td>No incentive</td>
<td>3.781</td>
</tr>
<tr>
<td>Survey Results</td>
<td>4.836</td>
</tr>
<tr>
<td>$20 Cash</td>
<td>4.886</td>
</tr>
<tr>
<td>$20 Gift Card</td>
<td>4.846</td>
</tr>
<tr>
<td>$20 Donation</td>
<td>4.863</td>
</tr>
<tr>
<td>Sweepstake ($600 value)</td>
<td>3.97</td>
</tr>
</tbody>
</table>

Respondents were asked to indicate how likely they were to respond to online surveys for six different incentives. While (1) indicated that respondents were not at all likely, (7) indicated that they were very likely. No incentive has a mean of 3.781 while cash incentive has a mean of 4.886.

Graph 1: Likelihood to respond to a 10 minute online survey with different incentives
**Table 2:** Pairwise Comparisons – Incentive Types for 10m survey

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Mean Difference</th>
<th>Std. Error</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Incentive</td>
<td>Survey Results</td>
<td>-1.055</td>
<td>0.063</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>$20 Cash</td>
<td>-1.104</td>
<td>0.103</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>$20 Gift Card</td>
<td>-1.065</td>
<td>0.102</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>$20 Donation</td>
<td>-1.082</td>
<td>0.093</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Sweepstake ($600 value)</td>
<td>-0.189</td>
<td>0.095</td>
<td>0.048</td>
</tr>
</tbody>
</table>

*Based on estimated marginal means, the mean difference is significant at the .05 level.

SPSS Pairwise comparisons were used to test the impact of different incentives on response rates for a 10 minute online survey. Table 2 shows the comparisons between no incentive and other incentives. Results show that the provision of survey results, $20 cash, gift card, and donations, improved response rate significantly (Sig = 0.000). In addition, sweepstakes ($600 value) affected response rates positively as well (Sig = .048 < p=. 05).

**Table 3:** Mean difference of response rates for different incentives (10, 20, 30 minutes surveys)
Graph 3: Likelihood to respond to 10, 20 and 30 minute online surveys with different incentives

Table 3 and Graph 3 show the mean response rates of 10, 20 and 30 minute online surveys for different incentives. As expected, response rates declined when survey length increased. On the other hand, study results showed that all incentives studied (survey results, cash, gift card, donation, and sweepstakes) improved response rates significantly for 10, 20 and 30 minute surveys.

Table 4: Pairwise Comparisons – Incentive Types for 10, 20, and 30 minute surveys
### Table 5: Incentives that would most strongly influence respondents to complete online surveys as carefully as possible

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
<th>10 Minutes Survey</th>
<th>20 Minutes Survey</th>
<th>30 Minutes Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Incentive</td>
<td>Survey Results</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>$20 Cash</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>$20 Gift Card</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>$20 Donation</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Sweepstake ($600 value)</td>
<td>0.048</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The survey asked respondents to select the one incentive that would most strongly influence them to complete online surveys as carefully as possible. One hundred twenty respondents (34.1%) selected the provision of survey results while 70 respondents (19.9%) selected $20 cash out of 353 valid responses. Around nine percent (9.1) of respondents selected other incentives. Some of the other incentives stated were interest in the subject matter, relevance, valued organization, shorter surveys, referral, and different electronic devices such as an iPod, tablet, Kindle fire.

**Pie Chart 1:** Incentives that would most strongly influence respondents to complete online surveys
### Table 6: Crosstabs – Gender and incentives that would most strongly influence respondents to complete online surveys

<table>
<thead>
<tr>
<th>Incentives</th>
<th>% Within Total</th>
<th>% Within Gender (Male)</th>
<th>% Within Gender (Female)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No incentive</td>
<td>17.3</td>
<td>17.7</td>
<td>20</td>
</tr>
<tr>
<td>Survey Results</td>
<td>34.1</td>
<td>36</td>
<td>29.6</td>
</tr>
<tr>
<td>$20 Cash</td>
<td>19.9</td>
<td>16.6</td>
<td>22.4</td>
</tr>
<tr>
<td>$20 Gift Card</td>
<td>9.7</td>
<td>8.8</td>
<td>9.6</td>
</tr>
<tr>
<td>$20 Donation</td>
<td>6.8</td>
<td>9.9</td>
<td>6.4</td>
</tr>
<tr>
<td>Sweepstake ($600 value)</td>
<td>3.1</td>
<td>3.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Other</td>
<td>9.1</td>
<td>7.1</td>
<td>10.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Sig (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>6.765a</td>
<td>6</td>
<td>0.343</td>
</tr>
</tbody>
</table>

SPSS Cross tabulations were used to analyze gender effects on the incentives that would most strongly influence respondents to complete online surveys. Analysis showed that there is not a significant difference among genders regarding incentive preference (Sig = .342).

**Hypothesis 1e:** The expected length of a web-based survey is negatively related to the initial willingness of managers and executives to participate and the response rate of online surveys.

### Table 7a: The impact of survey length when there is no incentive offered
Please indicate how likely you are to respond to surveys in each of the following situations:

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 10 minute online survey without any incentive?</td>
<td>3.79</td>
<td>1.535</td>
<td>390</td>
</tr>
<tr>
<td>A 20 minute online survey without any incentive?</td>
<td>2.57</td>
<td>1.537</td>
<td>390</td>
</tr>
<tr>
<td>A 30 minute online survey without any incentive?</td>
<td>1.83</td>
<td>1.274</td>
<td>390</td>
</tr>
</tbody>
</table>

**Table 7b: Pairwise Comparisons**

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Mean Difference</th>
<th>Std. Error</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1= 10 minutes Survey with No Incentive</td>
<td>2= 20 minutes Survey with No Incentive</td>
<td>1.215</td>
<td>0.065</td>
<td>0.000</td>
</tr>
<tr>
<td>1= 10 minutes Survey with No Incentive</td>
<td>3= 30 minutes Survey with No Incentive</td>
<td>1.962</td>
<td>0.077</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 7a and 7b show the effect of survey length on the mean response rates when there is no incentive. The mean for a 10 minutes survey is 3.79 while it is 1.83 for a 30 minute survey. At 0.05 level, survey length affects response rates significantly (sig = .000). The survey results confirmed the hypothesis that the expected length of a web-based survey is negatively related to the initial willingness to participate and the response rate of online surveys by executives.

**Graph 3**: Survey length vs. mean for responses (No incentive)
Table 8a: The impact of survey length when $20 cash incentive was offered

Descriptive Statistics

<table>
<thead>
<tr>
<th>Survey Length</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 10 minute online survey with $20 cash incentive?</td>
<td>4.91</td>
<td>1.881</td>
<td>384</td>
</tr>
<tr>
<td>A 20 minute online survey with $20 cash incentive?</td>
<td>3.84</td>
<td>1.962</td>
<td>384</td>
</tr>
<tr>
<td>A 30 minute online survey with $20 cash incentive?</td>
<td>2.8</td>
<td>1.911</td>
<td>384</td>
</tr>
</tbody>
</table>

Table 8b: Pairwise Comparisons

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Mean Difference</th>
<th>Std. Error</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1= 10 minutes Survey with $20 Cash Incentive</td>
<td>2= 20 minutes Survey with $20 Cash Incentive</td>
<td>1.065</td>
<td>0.07</td>
<td>0.000</td>
</tr>
<tr>
<td>1= 10 minutes Survey with $20 Cash Incentive</td>
<td>3= 30 minutes Survey with $20 Cash Incentive</td>
<td>2.112</td>
<td>0.093</td>
<td>0.000</td>
</tr>
</tbody>
</table>

(7=Very likely, 1=Not at all likely)
Table 8c: The impact of survey length when different incentives were offered

<table>
<thead>
<tr>
<th>Survey Length</th>
<th>Mean - Survey Results</th>
<th>Mean - $20 Cash</th>
<th>Mean - $20 Gift Card</th>
<th>Mean - $20 Donation</th>
<th>Mean - Sweepstake Drawing ($600 value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 10 minute online survey with incentive?</td>
<td>4.81</td>
<td>4.91</td>
<td>4.90</td>
<td>4.93</td>
<td>3.96</td>
</tr>
<tr>
<td>A 20 minute online survey with incentive?</td>
<td>3.44</td>
<td>3.84</td>
<td>3.84</td>
<td>3.84</td>
<td>3.17</td>
</tr>
<tr>
<td>A 30 minute online survey with incentive?</td>
<td>2.41</td>
<td>2.80</td>
<td>2.80</td>
<td>2.71</td>
<td>2.38</td>
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</tbody>
</table>

Study results showed that the length of the survey was negatively correlated with the likelihood to complete an online survey when a $20 cash incentive was offered. The mean for a 10 minute survey was 4.91, while it was 2.8 for a 30 minute survey when a cash incentive was offered (Table 8a). The impact of survey length (10, 20, and 30 minutes) was significant on response rates (Sig = 0.000 > p = 0.05). In addition, the study results showed that the effect of survey length significantly decreased response rates without depending on the incentive type (Table 8c). The response rates for all incentives (no incentive, survey results, $20 cash, $20 gift card, $20 donation, and a $600 sweepstake) were negatively related to survey length (Sig = 0.000).
**Limitations**

This study has several limitations. Respondents were asked to indicate their likelihood to complete online surveys with an online survey. In addition, the study measured intended behaviors, not the actual behavior. A combination of paper and online surveys to measure which incentive increases survey response rates would have resulted in a less biased study. In addition, the incentives tested in this study were predetermined. Six incentives were analyzed in this study; however, other incentives and their combinational effects were not examined. This study included respondents mainly from the United States. Managers and executives from other countries may have different responses to incentives. To generalize the findings of this study, the sample was not broad enough in terms of countries included in the study.
Conclusions

Managers and executives are an important sources of information for many research problems, managerial, strategic, or operational processes and may be the only source of information for some organizations, such as small, entrepreneurial businesses. Online surveys are gaining popularity to provide a less biased, more effective, and more efficient way to test many research problems among managers and executives. On the other hand, response rates are low for many web based surveys and are declining. The objective of this study was to find ways to improve response rates for online surveys. The results show that incentives increased online survey response rates similar to those of paper and pencil surveys. Compared to no incentive, the offer of survey result, cash, a gift card and donation increased response rates significantly. According to the study, the mean response rate for cash ($20), a gift card ($20) and a donation ($20) were the highest. The Offer of survey results increased response rates significantly. Sweepstakes drawing ($600 value) also increased response rates compared to no incentive (Sig=.048). In addition, results showed that survey length was negatively related to response rates for online surveys regardless of incentive type.

Implications for Researchers and Future Research

This study has many implications for researchers. The findings from this study strongly support the use of incentives, such as the provision of survey results, cash, gift card, or donation to a charity of the respondents’ choice, and a sweepstakes. Researchers can increase response rates to online surveys among managers and executives by offering monetary or non-monetary incentives. In addition, findings strongly support the use of shorter surveys to increase response
rates. There were significant differences in participants’ willingness to respond to 10, 20 and 30 minute surveys. Researchers should try to use shorter surveys or design surveys that can be completed in less time.

Web-based surveys are a relatively new area of research. Due to increasing information capabilities and technologies, the use of online surveys is gaining momentum. In this study, managers and executives were asked to indicate their likelihood to complete online surveys with provisions of different types of incentives that are common in paper and pencil surveys. The number of incentives tested in this study was limited. It would be interesting to evaluate and compare other incentives and their combined effects for different samples, including academicians, students, and the general public.

References


