Reasons for unit and partial nonresponse in Web Surveys

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Outline

• Survey research in Slovenia
• Nonresponse process
• Participation in Web surveys
• Description of the study
• Findings
Trends in Survey Industry

- Move towards self-administered modes
- Dominance of the Web among self-administered modes
- Responses rates are critical and still dropping (within all survey modes)
Nonresponse process in Web surveys is extremely structured

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Complete respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational population</td>
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</tr>
<tr>
<td>Frame population</td>
<td>Starting units</td>
</tr>
<tr>
<td>Sampled units</td>
<td>Clickers</td>
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<tr>
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<td>Informed units</td>
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Reasons for unit and partial nonresponse in Web surveys
Participation in Web surveys

Reasons for unit and partial nonresponse in Web surveys

Social environment

Technological environment

Survey design

RESEARCHER-RESPONDENT INTERACTION

Respondent’s characteristics

NO RESEARCHER’S CONTROL

PARTIALLY UNDER RESEARCHER’S CONTROL

RESEARCHER-RESPONDENT INTERACTION

Survey design

Social environment

Technological environment

Respondent’s characteristics
Technological environment

- Internet penetration (Slovenia: 30% of general population during the RIS’2001 survey)
- General telecommunications and ICT infrastructure (quality of Internet networks, costs of internet access)
- Legal regulations on solicitation (SPAM), incentives, privacy...
Reasons for unit and partial nonresponse in Web surveys

Social environment

- General survey climate: perception of direct marketing, legitimacy of surveys and their sponsors, data protection scandals… (Groves and Couper, 1989)
- Attitude toward spamming
Survey design

- Invitation to a Web Survey
- Follow-ups
- Incentives
- Research organization
- Length of data collection period
- Questionnaire design
Respondents' characteristics

- Social-demographic characteristics
- Survey experience
- Interest in survey topic
- Attitudes and other psychological predispositions
The survey

- Web survey: July – Oktober 2001
- Target population: 550,000 Internet users
- 14,012 respondents (at least partial)
- Banner advertising
  - 3 Web Advertising networks + 50 individual sites Web sites ⇒ altogether 300 largest Web Sites
  - More than 10 mio. impressions of banner-adds
  - More than 100,000 clicks
- E-mail invitations (20,000)
Respondents in Web survey

14,012 respondents

- 9,673 (70%) solicited with Banner Advertising
- 4,199 (30%) solicited with e-Mail invitation
- 140 cannot categorize
Reasons for unit and partial nonresponse in Web surveys

Evaluation surveys

2 telephone surveys and 2 web surveys

**Telephone Survey 1** (n=4241)

**Telephone Survey 2** (n=368)

**Web Survey 1** (n=140)
3.-10. December 2001

**Web Survey 2** (n=218)
Reasons for unit and partial nonresponse in Web surveys

Telephone evaluation

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you notice banner?</td>
<td>No (90%)</td>
</tr>
<tr>
<td>Did you click on banner?</td>
<td></td>
</tr>
<tr>
<td>Did you start answering?</td>
<td></td>
</tr>
<tr>
<td>How much of the Question did you answer?</td>
<td></td>
</tr>
</tbody>
</table>
Reasons for unit and partial nonresponse in Web surveys

**Telephone evaluation (n=5016)**

- Did you notice banner?
  - No (90%)
  - Yes (10%)

- Did you click on banner?
  - No 67% / 7%
  - Yes 33% / 3%

- How much of the Qnaire did you answer?
  - 0% to 100%
Reasons for unit and partial nonresponse in Web surveys

Telephone evaluation (n=5016)

- Did you notice banner?
  - No (90%)
  - Yes (10%)

- Did you click on banner?
  - No 67% / 7%
  - Yes 33% / 3%

- Did you start answering?
  - No 25% / 1%
  - Yes 75% / 2%
Telephone evaluation (n=5016)

Reasons for unit and partial nonresponse in Web surveys

Did you notice banner?
- No (90%)
- Yes (10%)

Did you click on banner?
- No 67% / 7%
- Yes 33% / 3%

Did you start answering?
- No 25% / 1%
- Yes 75% / 2%

How much of the Questionnaire did you answer?
- Only first few Q
  13%
- I answered part of the Questionnaire
  33%
- I answered whole Questionnaire
  63%
Reasons for unit and partial nonresponse in Web surveys

Web evaluation (n=349)

- Did you notice banner?
  - No: 43%
  - Yes: 57%

- Did you click on banner?
  - [Percentage chart]

- Did you start answering questionnaire?
  - [Percentage chart]

- How much of the questionnaire did you answer?
  - [Percentage chart]
Reasons for unit and partial nonresponse in Web surveys

Web evaluation (n=349)

Did you notice banner?
- No: 43%
- Yes: 57%

Did you click on banner?
- No: 22% / 13%
- Yes: 78% / 44%

How much of the Qnaire did you answer?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Reasons for unit and partial nonresponse in Web surveys

Web evaluation (n=349)

Did you notice banner?
- No 43%
- Yes 57%

Did you click on banner?
- No 22% / 13%
- Yes 78% / 44%

Did you start answering questionnaire?
- No 8% / 3%
- Yes 92% / 41%
Reasons for unit and partial nonresponse in Web surveys

Web evaluation (n=349)

- Did you notice banner?
  - No 43%
  - Yes 57%

- Did you click on banner?
  - No 22% / 13%
  - Yes 78% / 44%

- Did you start answering questionnaire?
  - No 8% / 3%
  - Yes 92% / 41%

- How much of the questionnaire did you answer?
  - Only first few Q 10%
  - I answered part of the questionnaire 19%
  - I answered whole questionnaire 75%
Reported Q-naire Flow

<table>
<thead>
<tr>
<th>%</th>
<th>Telephone</th>
<th>Web</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notice Banner</td>
<td>10</td>
<td>57</td>
</tr>
<tr>
<td>Click</td>
<td>33 / 3</td>
<td>78 / 44</td>
</tr>
<tr>
<td>Start answering</td>
<td>75 / 2</td>
<td>92 / 41</td>
</tr>
<tr>
<td>Finish</td>
<td>63</td>
<td>75</td>
</tr>
</tbody>
</table>
Reasons for unit and partial nonresponse in Web surveys

Nonresponse process

<table>
<thead>
<tr>
<th>Target Population ➞</th>
<th>Operational population ➞</th>
<th>Frame population ➞</th>
<th>Sampled units ➞</th>
<th>Absorbed units ➞</th>
<th>Informed units ➞</th>
<th>Aware units ➞</th>
</tr>
</thead>
<tbody>
<tr>
<td>550,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>500,000</td>
<td>10% = 50,000</td>
</tr>
</tbody>
</table>

Solicitation
- Banner Ads – 90% coverage
- e-Mail solicitation

Complete respondents ➞ Partial respondents

Starting units ➞ Clickers

500,000 – 10% = 50,000
Why you didn’t click?

**Telephone**
1) Lack of interest
2) I don’t click on banners
3) I didn’t have time
4) Don’t know
5) Afraid of Viruses

**Web**
1) I didn’t have time
2) Lack of interest
3) Don’t know
4) I don’t click on banners

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**Diagram:**
- **Target Population:** 550,000
- **Complete respondents:**
- **Partial respondents:**
- **Frame population:**
- **Operational population:**
- **Absorbed units:**
- **Solicited units:**
- **Clickers:** 3% = 15,000

**Solicitation:**
- Banner Ads – 90% coverage
- e-Mail solicitation

**Telephone & Web Survey Results:**
- 1) Lack of interest
- 2) I don’t click on banners
- 3) I didn’t have time
- 4) Don’t know
- 5) Afraid of Viruses
Why you didn’t start answering?

1) Lack of interest
2) I didn’t have time
3) Don’t know
4) Computer problems
Why didn’t you finish?

1) I didn’t have time
2) Too long questionnaire
3) Lack of interest
4) Computer problems
5) Don’t know
Socio-demographic factors

<table>
<thead>
<tr>
<th>Gender</th>
<th>Did you notice banner? (%) Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Telephone</td>
</tr>
<tr>
<td>male</td>
<td>12</td>
</tr>
<tr>
<td>female</td>
<td>8</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>under 25</td>
<td>9</td>
</tr>
<tr>
<td>25 - 34</td>
<td>14</td>
</tr>
<tr>
<td>35 - 44</td>
<td>10</td>
</tr>
<tr>
<td>45 and more</td>
<td>8</td>
</tr>
<tr>
<td>Frequency of internet use</td>
<td></td>
</tr>
<tr>
<td>more than once a week</td>
<td>14</td>
</tr>
<tr>
<td>weekly or less</td>
<td>5</td>
</tr>
<tr>
<td>Familiarity the project RIS</td>
<td></td>
</tr>
<tr>
<td>not familiar at all</td>
<td>4</td>
</tr>
<tr>
<td>barley familiar</td>
<td>25</td>
</tr>
<tr>
<td>I am aware of the project</td>
<td>52</td>
</tr>
</tbody>
</table>
Influence on nonresponse process

<table>
<thead>
<tr>
<th></th>
<th>Familiarity with project RIS</th>
<th>Age</th>
<th>Gender</th>
<th>Frequency of Internet use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Click</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Start</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

*p < 0.001, *p < 0.05, *p < 0.1
Conclusions

• Initial stages
  1. Interest and motivation most critical
  2. Survey brand extremely important
  3. Demographic factors also very important

• Later stages
  1. Questionnaire characteristics
  2. Lack of time or lack of interest
  3. Demographic factors are less important
  4. Variety of computer problems
Conclusions

• Technological changes are occurring extremely fast
• Those, who are implementing Web Surveys are forced to use mixed-mode at the solicitation as well as at the responding stage that leads to even higher complexity of nonresponse studying
Conclusions

• Very complex nonresponse process
• Respondents are overfilled with surveys and telemarketing (lack of time and interest)
• Reputation of survey organization is very important on all levels
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**WebSM** – Web Survey Methodology
http://www.websm.org/

**RIS** – Research on Internet in Slovenia
http://www.ris.org/

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