CHAPTER IV

ANALYSIS AND FINDINGS

Postal mail was a landmark in the history of long distance communication. The earliest letters were carried by messengers who walked the distance—some even ran depending on the urgency of the message, or went by coaches. These took several days or even weeks to reach their destination. The system evolved and with industrialisation it developed into a complex postal mail service that delivered letters faster. However, sending a letter by postal mail involved writing the letter, enclosing it in an envelope, affixing a stamp, writing the address of the destination person/institution and putting it into a post box. The department took over and transported the letters via road, rail, air or water to its counterpart in the destination areas. Post offices in these areas in turn delivered the letter to the given addresses.

Such a letter can be sent to one destination only and predictably, the feedback is highly asynchronous. In 1876 the telephone, Alexander Graham Bell’s invention that was to revolutionise communication, made light of this drawback and heralded the era of synchronous mediated communication.

While the telephone did lead to a decrease in the use of postal mail by people, the major threat to the postal system seems to be the email, in which communication happens at the click of the ‘send’ button. Besides, one can send the same message to many at the same time. Speed is the essence of email. Even a delivery failure – perhaps as a result of keying in the address wrongly—bounces back to the sender in minutes, unlike postal mail, where the notification could take days if not weeks.

Some of the distinct advantages email has over postal mail and the telephone are:

- The same letter can be modified and sent to others if need be. It can also be forwarded from person to person/s and is the most important communication
tool for online groups and social networks. (Lister, Dovey, Giddings, Grant and Kelly, 2003).

- The email id is a virtual address unlike the postal one, resulting in anonymity. Telephone numbers are also as real as the postal address. The email address can be anything the user wants it to be. The only tangible thing about it is that the service provider is mentioned in the address – e.g: sandhyarajshekar@gmail.com, where Gmail is the service provider.

- The near simultaneous exchange of messages makes the email a highly rich medium, perhaps next only to online chat on the World Wide Web.

Even after the advent of the internet and email, postal mail continues to be used, particularly in India, not just for personal and official letters, but for research, both commercial and academic, and for marketing communications.

The telephone, too, is used widely for research and marketing purposes, apart from personal and official use.

When the email arrived, it was considered a great new tool by both researchers and the marketing industry. While email users objected to, or were not happy with, marketing messages, early email surveys did bring in an acceptable number of responses, especially in countries like the United States.

With computerisation and online services happening at different times and to different degrees in different cultures, the versatility of the email, especially as a survey mode, needs to be tested individually across different cultures/societies.

The present Study therefore, focused on the effectiveness of this new survey mode – the email - but also considered for study the two old favourites: the postal mail and the telephone.

The analysis and findings will be presented in four parts:
Part I: The main study: The effectiveness of email questionnaire, telephone interview and postal mail questionnaire as tools for data collection in mass communication research.

Part II: The Email questionnaire as a survey tool.

Part III. The telephone interview as a survey tool.

Part IV. The postal mail questionnaire as a survey tool.

Part I - The main study

This part involves the main study, ‘The email questionnaire as an effective tool for data collection in mass communication research – a comparative study with the telephone interview and the traditional mail questionnaire as mediated data collection tools’. It details how the sampling was done; the survey modes used, the approach adopted, that is, the method of contact, type of questionnaires used and personalisation attempted.

The Findings discuss in detail the response rates for the three different modes of communication. Three different types of questionnaires were used:

1. Simple and short
2. Complex and medium in length
3. Simple and lengthy

Response is discussed in terms of questionnaire type, in terms of medium and questionnaire type and in terms of each medium as a survey mode.

Response in terms of time and cost for the three modes has also been calculated.

The data obtained from the responses are tested against hypotheses to check significance of the data. Part I concludes with Inferences arrived on the (i) expected response rate of 60%; (ii) the quality of the questionnaire; (iii) capacity to collect large
amounts of data; and (iv) response time and response cost. The inferences have been arrived at on the basis of statistical analysis.

1. **Survey mode**

   Being a comparative study, the experiment involved multiple survey modes: the email, the postal mail and the telephone. The mixed mode was not used for any of the surveys at any stage.

2. **Sampling**

   Studying the effectiveness of the three modes of survey involved experimentation. A total number of 657 respondents were sent questionnaires:
   
i. Email questionnaires sent: 225. Undelivered: 30. Thirty more mails were sent.
   
   ii. Postal mail questionnaires sent: 225. Undelivered: 31. Thirty one more postal mail questionnaires were sent.
   
   iii. Telephone calls made: 225. Invalid calls: 41. Forty one more calls were made.

3. **Approach**

   Pre-notification was not followed for any of the three modes. However, telephone interviews were fixed according to the convenience of the respondent, if he/she so wished. Also, the email questionnaire was sent as an attachment, which is supposed to have the same effect of pre-notification (Cho and La Rose, 1999). The postal mail did not have any kind of pre-notification.

   There was no post-notification or reminders for email or postal mail surveys. Email survey respondents who mailed back filled in questionnaires were promptly sent thank you emails. Telephone survey respondents who had fixed a schedule for the interview were called up accordingly to conduct the interview.
4. **Personalisation.**

For the email survey, questionnaires were sent to 25 respondents at a time. Personalisation factor was present only in the self-introduction, where the researcher was identified as someone who had a mutual contact with the respondent.

For both the postal mail and email, the salutation was ‘Dear respondent’.

Personalisation in the form of naming the person was used for the telephone survey. Names given against the telephone number in the Chennai Telephone Directory were used in the telephone survey.

i. **The Email questionnaire.** Respondents were told that the questionnaire was for educational purposes. The researcher was identified as a PhD candidate from Mysore University. A request was made to respond to the questionnaire.

   The subject line was: Hi, this is just to know what you think of the news media.

   The introduction to the email questionnaire was as follows:

   Dear Respondent,
   I got your email address through a mutual contact.
   My apologies for making use of your email address
   This survey is part of my doctoral studies in mass communication, University of Mysore.
   I request you to fill in your opinion about our news media today.
   In the answer box given against each question, please enter the code/s or the answer/s that is closest to your opinion about news media. **All you have to do is save the file onto the desktop, fill in the questionnaire, save the file once you have completed and mail it back to sandhyarajshekar@gmail.com as an attachment.**
   Your cooperation would be deeply appreciated.
   Thanks,
   Sandhya Rajasekhar,
   PhD candidate,
   Department of Communication, University of Mysore, Mysore – 6.
   sandhyarajshekar@gmail.com
ii. **The postal mail questionnaire.** Using the postal mail for survey involved a lot of tasks. Two hundred and twenty five copies of the questionnaires were made. A P.O box was opened at the local post office. The envelope contained a questionnaire and a stamped, self-addressed envelope to make the process as convenient as possible to the respondent.

The introduction was given thus:

Dear respondent,

This survey is part of my doctoral studies in mass communication. I request you to fill in your opinion about our news media today. Please tick the answer/s that is closest to your opinion about news media, and fill in your views/opinions for questions that do not contain any options. Any member of the family who is above the age of 18 can answer the questionnaire. I request you to post the filled in questionnaire in the self-addressed, stamped envelope enclosed for the purpose.

Thanks,
Sandhya Rajasekhar,
PhD candidate,
University of Mysore.

iii. **The telephone interview.** The telephone interview involved calling up the selected number and seeking permission to interview anyone in the house above the age of 18. The interviewer introduced herself as a PhD scholar conducting a survey for academic purposes.

5. **The Questionnaire**

Three different types of questionnaires were used for the experiment. In each survey mode, 75 respondents were sent the simple and short questionnaire, 75 the complex and medium length questionnaire, and 75 the simple and long questionnaire, thus making up the total of 225 respondents.

6. **Topic Salience**

The topic, ‘Public opinion on news media’ was considered salient for all three survey respondents.
7. **Findings**

Findings are reported in terms of response rate, response time and costs.

i. **Response Rates.** The survey among 675 respondents using three different modes of communication achieved a response rate of 26.5% or 179 responses (table 1). The email and postal mail contributed very little to the total. The telephone contributed 74.3% of the responses.

<table>
<thead>
<tr>
<th>Survey Mode</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 Email</td>
<td>13</td>
<td>0</td>
<td>212</td>
<td>225</td>
</tr>
<tr>
<td>X2 Telephone</td>
<td>133</td>
<td>35</td>
<td>57</td>
<td>225</td>
</tr>
<tr>
<td>X3 Postal mail</td>
<td>33</td>
<td>06</td>
<td>186</td>
<td>225</td>
</tr>
<tr>
<td>TOTAL</td>
<td>179</td>
<td>41</td>
<td>455</td>
<td>675</td>
</tr>
</tbody>
</table>

N= 675, 225 each mode

As the table above shows, the telephone has achieved the highest response with 133 out of 225 (59.11%) respondents completing the interview. However, it also has the highest number of incomplete responses, with 15.5% of the total telephone respondents cutting the interview short.

The postal mail and the email received extremely poor response rates - 14.6% and 5.77% (out of 225 email questionnaires each) respectively. The postal mail did have a few respondents sending in a few incomplete questionnaires, but their number was too few – 6/225 – to be useful for analysis.

The email survey, with the highest number of non-responses, did not get any incomplete responses.
TABLE I.2. RESPONSE TO EMAIL QUESTIONNAIRE AS A SURVEY TOOL

<table>
<thead>
<tr>
<th>Questionnaire Type</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple and short</td>
<td>7</td>
<td>0</td>
<td>68</td>
<td>75</td>
</tr>
<tr>
<td>Complex and medium length</td>
<td>2</td>
<td>0</td>
<td>73</td>
<td>75</td>
</tr>
<tr>
<td>Simple and Long</td>
<td>4</td>
<td>0</td>
<td>71</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>0</td>
<td>212</td>
<td>225</td>
</tr>
</tbody>
</table>

N= 225 email questionnaires.

The present Study shows a very low response rate (5.11%) for the email questionnaire.

It is significant that there were nil incomplete responses.

TABLE I.3. RESPONSE TO TELEPHONE INTERVIEW AS A SURVEY TOOL

<table>
<thead>
<tr>
<th>Questionnaire Type</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple and short</td>
<td>41</td>
<td>11</td>
<td>23</td>
<td>75</td>
</tr>
<tr>
<td>Complex and medium length</td>
<td>42</td>
<td>21</td>
<td>12</td>
<td>75</td>
</tr>
<tr>
<td>Simple and Long</td>
<td>50</td>
<td>3</td>
<td>22</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>133</td>
<td>35</td>
<td>57</td>
<td>225</td>
</tr>
</tbody>
</table>

N= 225 telephone interviews

In the present study, the telephone interview has achieved a response rate of 59.11%. If incomplete responses can be considered as eligible to be classified under response, then the effectiveness of the landline telephone is even higher: 74.66%
Incomplete responses present an interesting picture. The complex questionnaire resulted in 21 incomplete responses, and the simple questionnaire, 11.

The lengthy questionnaire, though, has the largest number of complete responses (50), and the lowest number of incomplete responses (3).

From these results it can be inferred that the reason for refusal to complete the questionnaire could have been the nature of the simple and complex questionnaires.

The lengthy questionnaire was simple and long. The simple questionnaire had close-ended questions with a lot of options, which made it difficult for the respondent to keep in memory and select the appropriate option/s. This resulted in interview taking a longer time even though the questionnaire was short, and in annoyance on the part of some respondents.

The complex questionnaire also suffered from the same problems, and it was longer than the simple questionnaire.

The lengthy questionnaire also had the multiple options that were used in the simple questionnaire, but they were fewer. There were a lot of questions which were open ended, like, which is your favourite newspaper? Can you name one newspaper that you dislike? and so on. So even though the questionnaire was lengthy, the respondent had more opportunities to talk and express his or her opinion.

\textbf{TABLE I.4. RESPONSE TO POSTAL MAIL QUESTIONNAIRE AS A SURVEY TOOL}

<table>
<thead>
<tr>
<th>Questionnaire Type</th>
<th>Complete Responses</th>
<th>Incomplete Responses</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple and short</td>
<td>8</td>
<td>3</td>
<td>64</td>
<td>75</td>
</tr>
<tr>
<td>Complex and medium length</td>
<td>12</td>
<td>3</td>
<td>60</td>
<td>75</td>
</tr>
<tr>
<td>Simple and Long</td>
<td>13</td>
<td>0</td>
<td>62</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>6</td>
<td>186</td>
<td>225</td>
</tr>
</tbody>
</table>

N= 225 postal mail questionnaires.
The postal mail showed very poor response rates (14.66%). The number of incomplete responses was also low. For the postal mail, as far as this Study is concerned, incomplete responses can be considered as a response because of the effort required to send back the questionnaire to the researcher by post. This shows the interest of the respondent to fill in the questionnaire. The fact that they have posted incomplete questionnaires could mean one of the two things - lack of ability to answer certain questions due to lack of knowledge of the English language; or/and lack of knowledge of the topic itself to complete the questionnaire. However, as mentioned earlier, the number of incomplete questionnaires for postal mail in this Study is too few. The lengthy questionnaire consistently received fewer incomplete responses.

**TABLE I.5. RESPONSE ON THE BASIS OF QUESTIONNAIRE TYPE**

<table>
<thead>
<tr>
<th>Questionnaire type</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple and short</td>
<td>56</td>
<td>14</td>
<td>155</td>
<td>225</td>
</tr>
<tr>
<td>Complex and medium length</td>
<td>56</td>
<td>24</td>
<td>145</td>
<td>225</td>
</tr>
<tr>
<td>Simple and Long</td>
<td>67</td>
<td>3</td>
<td>155</td>
<td>225</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>41</td>
<td>455</td>
<td>675</td>
</tr>
</tbody>
</table>

N= 675, 225 each type of questionnaire.

The lengthy questionnaire, with a mix of closed and open-ended questions seems to be the most successful both in getting the most number of responses and in getting the least number of incomplete responses. Of the 179 responses, the lengthy questionnaire got a response rate of 29.7%, and the simple and the complex questionnaire got a response rate of 24.8% each.
TABLE I.6. COMPLETED RESPONSE ON THE BASIS OF MODE AND QUESTIONNAIRE TYPE

<table>
<thead>
<tr>
<th>Medium</th>
<th>Questionnaire type</th>
<th>Total response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Simple and short questionnaire</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complex and medium length questionnaire</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Simple and long questionnaire</td>
<td></td>
</tr>
<tr>
<td>X1 Email</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>X2 Telephone</td>
<td>41</td>
<td>133</td>
</tr>
<tr>
<td>X3 Postal mail</td>
<td>8</td>
<td>33</td>
</tr>
<tr>
<td>TOTAL</td>
<td>56</td>
<td>179</td>
</tr>
</tbody>
</table>

N=179 responses out of 225 for each type of survey and questionnaire.

While the simple questionnaire achieved the highest number of responses for the email survey, the lengthy questionnaire achieved the highest number of responses for both the telephone and the postal mail surveys. However, only the differences in questionnaire types in the telephone survey will merit a study, if found significant. Responses to email and postal mail surveys are too low in this Study to be analysed further.

TABLE I.7. RESPONSE ON THE BASIS OF MODE AND QUESTIONNAIRE TYPE: SIMPLE AND SHORT QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Tool</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>7</td>
<td>0</td>
<td>68</td>
<td>75</td>
</tr>
<tr>
<td>Telephone</td>
<td>41</td>
<td>11</td>
<td>23</td>
<td>75</td>
</tr>
<tr>
<td>Postal</td>
<td>8</td>
<td>3</td>
<td>64</td>
<td>75</td>
</tr>
<tr>
<td>TOTAL</td>
<td>56</td>
<td>14</td>
<td>155</td>
<td>225</td>
</tr>
</tbody>
</table>

N= 225 simple and short questionnaires, 75 for each mode.
The simple questionnaire achieved a completed response rate of 24.88% for the 225 questionnaires sent across the three modes. Incomplete questionnaires comprised 6.22% of the total number of questionnaires, while a whopping 68.8% of the simple questionnaires remained unanswered.

The simple questionnaire fared well in the telephonic survey, with more than half of the respondents (54.66%) who were administered the simple questionnaire completing the interview.

**TABLE I.8. RESPONSE ACCORDING TO MODE AND QUESTIONNAIRE TYPE: COMPLEX AND MEDIUM LENGTH QUESTIONNAIRE.**

<table>
<thead>
<tr>
<th>Tool</th>
<th>Complete</th>
<th>Incomplete</th>
<th>None</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>2</td>
<td>0</td>
<td>73</td>
<td>75</td>
</tr>
<tr>
<td>Telephone</td>
<td>42</td>
<td>21</td>
<td>12</td>
<td>75</td>
</tr>
<tr>
<td>Postal mail</td>
<td>12</td>
<td>3</td>
<td>60</td>
<td>75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56</strong></td>
<td><strong>24</strong></td>
<td><strong>145</strong></td>
<td><strong>225</strong></td>
</tr>
</tbody>
</table>

N= 225 complex and medium length questionnaires

While the complex questionnaire achieved the same completed response rate as the simple questionnaire (24.88%), the number of incomplete responses is higher at 24 (10.66% incomplete response rate).

The telephone survey has the highest number of both complete responses and incomplete responses. While the completed responses are almost the same as achieved by the simple questionnaire, the number of incomplete responses for the complex questionnaire is 10 more than that for the simple questionnaire for the telephone survey.
TABLE I.9. RESPONSE ACCORDING TO MODE AND QUESTIONNAIRE

TYPE: SIMPLE AND LENGTHY QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Tool</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>4</td>
<td>0</td>
<td>71</td>
<td>75</td>
</tr>
<tr>
<td>Telephone</td>
<td>50</td>
<td>3</td>
<td>22</td>
<td>75</td>
</tr>
<tr>
<td>Postal mail</td>
<td>13</td>
<td>0</td>
<td>62</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>3</td>
<td>155</td>
<td>225</td>
</tr>
</tbody>
</table>

N=225 simple and lengthy questionnaires

The lengthy questionnaire is important in two ways: it has achieved a completed response rate of almost 30% (29.77%) overall, and 66.66% for the telephone which also received the lowest number of incomplete responses: 3 (1.33%).

ii. **Response time and cost.** Time taken and the expenses incurred in conducting the survey are also important parameters for the success of the mode used.
TABLE I.10.  TIME AND COST OF THE THREE MODES OF SURVEYS

<table>
<thead>
<tr>
<th>MEDIUM</th>
<th>COST</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>Rs. 30 (6 Rs/hr *5hrs)</td>
<td>2 weeks* (336 hrs)</td>
</tr>
<tr>
<td>Telephone</td>
<td>Rs 389.**</td>
<td>12hrs, 40min**</td>
</tr>
<tr>
<td>Postal mail</td>
<td>Rs. 2986.50***</td>
<td>2 weeks (336 hrs)</td>
</tr>
</tbody>
</table>

Cost: *Rs. 6 Per hour, Bharat Sanchar Nigam Ltd.(BSNL) rates, for five online hours spent for sending 225 questionnaires, checking out the mail, and downloading the returned questionnaires.

** Re.1per three minutes, BSNL rates.

*** Inclusive of:

- Envelopes (450 numbers): Rs.292.50
- Xerox: Rs.327.00
- Stamps: Rs.2250.00 (Rs.5 each)
- Post Box rental: Rs.117.00

Time: *The 13 responses came in two weeks time, while the first one came the very next day that the questionnaires were sent.

**The time here is calculated based on the total numbers of hours used for the calls. The calls were made over a period of a few days.

***The first set of responses came in the first two weeks. Of the ones sent afresh, the responses again took two weeks to come.

In terms of time and cost, the telephone survey is more advantageous as it costs less (hiring field workers, should of course, cost heavily, but that applies for all modes), and takes much less time.
Effectiveness is inversely proportional to cost, time and non-response

Effectiveness = low cost, less time and low non-response
Hypotheses

The following hypotheses are tested to check the significance of the data presented above. Expected frequency will be taken as 60%. Generally, a response rate of 50% is considered adequate, 60% is considered good and 70% and above is very good (Babbie, Earl, 1998). A meta analysis of 45 studies by Hox and Leeuw (1994) found that face-to-face interviews got the highest response rates with 70.3% and telephone interviews achieved 61.3% response rate.

As mentioned in the methodology chapter, only completed responses will be considered for the hypotheses.

The Chi-square test of significance will be used to test the hypotheses.

NULL HYPOTHESIS (NH) 1. There is no significant difference in the total number of responses and the total number of non-responses got by email, telephone and postal mail survey questionnaires at the expected response rate of 60%.

TABLE I.11. NULL HYPOTHESIS 1.

<table>
<thead>
<tr>
<th>Response got by all three modes</th>
<th>Observed frequency</th>
<th>Expected frequency (60% of 675)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>179</td>
<td>405</td>
</tr>
<tr>
<td>Non-response</td>
<td>496</td>
<td>270</td>
</tr>
</tbody>
</table>

N = 675

Chi square value = 315.28

Chi square value of 315.28 is **highly significant** at 1df, 5 % margin of error.

Therefore,

Alternate Hypothesis (AH) 1. There is a significant difference in the total number of responses and the total number of non-responses got by email,
telephone and postal mail survey questionnaires at the expected response rate of 60%.

Inference: Total number of overall responses is extremely low, and the total number of overall non-responses is extremely high.

*_*_*_

**NH 2.** There is no significant difference in the number of responses got by email surveys, telephone surveys and postal mail surveys.

<table>
<thead>
<tr>
<th></th>
<th>Survey method</th>
<th>Observed frequency (O)</th>
<th>Expected frequency (E) (179/3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>13</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td>133</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Postal mail</td>
<td>33</td>
<td>59</td>
<td></td>
</tr>
</tbody>
</table>

N=179 responses

Chi square value = 137.06

Chi square value of 137.06 is highly significant at 2df, 5% margin of error.

Therefore,

**AH 2. There is a significant difference in the number of responses got by email surveys, telephone surveys and postal mail surveys.**

Inference: The telephone survey got a significantly larger number of responses when compared to the email survey and the postal mail survey.

*_*_*_*
NH 3. There is no significant difference in the number of completed responses and non-responses got by the email survey questionnaire at the expected response rate of 60%.

**TABLE I. 13. NULL HYPOTHESIS 3**

<table>
<thead>
<tr>
<th>Email survey</th>
<th>Observed frequency</th>
<th>Expected frequency (60% response rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>13</td>
<td>135</td>
</tr>
<tr>
<td>No response</td>
<td>212</td>
<td>90</td>
</tr>
</tbody>
</table>

N= 225

Chi square value = 276.62

Chi square value of 276.62 is **highly significant** at 1df, 5% margin of error.

Therefore,

AH 3. There is a significant difference in the number of responses and the number of non-responses got by the email survey at the expected response rate of 60%.

Inference: The email survey got a very poor response, with the non-responses being far greater than the responses. Both responses and non-responses were extremely far from the expected response rate of 60% and non-response rate of 40%.

The email questionnaire is an ineffective survey tool, falling far short of the expected response rate of 60%.

* _ _ _
NH 4. There is no significant difference in the number of responses and the number of non-responses got by the telephone survey questionnaire at the expected response rate of 60%.

**TABLE I. 14. NULL HYPOTHESIS 4.**

<table>
<thead>
<tr>
<th>Telephone survey</th>
<th>Observed frequency</th>
<th>Expected frequency (at 60% response rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>133</td>
<td>135</td>
</tr>
<tr>
<td>No response</td>
<td>92</td>
<td>90</td>
</tr>
</tbody>
</table>

N= 225

Chi square value = 0.08 (lesser than chi square value at 1df, 0.05 level.)

Chi square value of 0.08 is not significant at 1df, 5% margin of error.

**AH4. The Null Hypothesis is accepted: There is no significant difference in the number of responses and the number of non-responses got by the telephone survey questionnaire at the expected response rate of 60%.**

The telephone survey has received a response rate of 59.11%, significantly higher than the non response rate at the expected response rate of 60%.

Inference: The telephone interview is an effective survey tool, meeting the expected response rate of 60%

* * *
NH 5. There is no significant difference in the number of responses and the number of non-responses got by the postal mail survey questionnaire at the expected response rate of 60%.

**TABLE I. 15. NULL HYPOTHESIS 5.**

<table>
<thead>
<tr>
<th>Postal mail survey</th>
<th>Observed frequency</th>
<th>Expected frequency (at 60% response rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>33</td>
<td>135</td>
</tr>
<tr>
<td>No response</td>
<td>192</td>
<td>90</td>
</tr>
</tbody>
</table>

N= 225

Chi square value = 192.66

Chi square value of 192.66 is **highly significant** at 1df, 5% margin of error.

Therefore,

AH 5. **There is a significant difference in the number of responses and the number of non-responses got by the postal mail survey questionnaire at the expected response rate of 60%**.

Inference: With both the responses and the non-responses being far away from the expected 60% and 40% respectively, the postal mail has received a poor number of responses and a far greater number of non-responses than expected.

**The postal mail questionnaire is an ineffective survey tool when considered at the expected level of 60% response rate.**

* * *
NH 6. Within each survey type, there is no significant difference in the number of responses for simple and complex questionnaires received in the email survey, in the telephone survey; and in the postal mail survey.

**TABLE I. 16 NULL HYPOTHESIS 6**

<table>
<thead>
<tr>
<th>Survey method</th>
<th>Simple questionnaire</th>
<th>Complex questionnaire</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Telephone</td>
<td>41</td>
<td>42</td>
<td>83</td>
</tr>
<tr>
<td>Postal mail</td>
<td>8</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>56</td>
<td>112</td>
</tr>
</tbody>
</table>

N= 225

Chi square value = 3.56

Chi square value of 3.56 is **not significant** at 2df, 5% margin of error. The cells in the first row get an expected value of 4.5.

AH6. The Null Hypothesis is accepted: Within each survey type, there is no significant difference in the number of responses for simple and complex questionnaires received in the email survey, in the telephone survey; and in the postal mail survey.

- Inference: The quality of the questionnaire does not significantly influence the response rate, since there is no significant difference in the number of responses received by each, for any type of survey. This is also true with the telephone survey, which is considered effective in getting an expected response rate of 60%.

* * *
NH 7. There is no significant difference in the number of responses for simple and short questionnaires received in the email survey, the telephone survey and the postal survey.

**TABLE I.17. NULL HYPOTHESIS 7**

<table>
<thead>
<tr>
<th>Survey method</th>
<th>Observed frequency of response for simple questionnaire</th>
<th>Expected frequency of response for simple questionnaire (56/3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Telephone</td>
<td>41</td>
<td>19</td>
</tr>
<tr>
<td>Postal mail</td>
<td>8</td>
<td>19</td>
</tr>
</tbody>
</table>

N= 56 responses for simple questionnaire

Chi square value= 38.55

Chi square value of 38.55 is significant at 2df, 5% margin of error.

Therefore,

**AH 7. There is a significant difference** in the number of responses for simple and short questionnaires received in the email survey, the telephone survey and the postal survey.

Inference: The telephone interview, being the most effective survey tool, has got the highest number of responses for the simple questionnaire.

* * *
NH 8. There is no significant difference in the number of responses for complex and medium length questionnaires received in the email survey, the telephone survey and the postal mail survey.

**TABLE I. 18. NULL HYPOTHESIS 8**

<table>
<thead>
<tr>
<th>Survey method</th>
<th>Observed frequency of response for complex questionnaire</th>
<th>Expected frequency of response for complex questionnaire (56/3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>02</td>
<td>18</td>
</tr>
<tr>
<td>Telephone</td>
<td>42</td>
<td>19</td>
</tr>
<tr>
<td>Postal mail</td>
<td>12</td>
<td>19</td>
</tr>
</tbody>
</table>

N= 56 responses for complex questionnaire.

Chi square value = 44.61

Chi square value of 44.61 is significant at 2df, 5% margin of error. **But the expected frequency for cell number one is less than 5.**

Therefore,

AH 8. **There is a significant difference** in the number of responses for complex and medium length questionnaires received in the email survey, the telephone survey and the postal mail survey.

Inference: The telephone survey, being the most effective of the three modes, also has the highest number of responses for complex questionnaires when compared with the email and the postal mail.

* __ * __
NH 9. There is no significant difference in the number of responses for simple and lengthy questionnaires received in the email survey, the telephone survey and postal mail survey.

**TABLE I.19. NULL HYPOTHESIS 9**

<table>
<thead>
<tr>
<th>Survey method</th>
<th>Observed number of responses for lengthy questionnaire</th>
<th>Expected number of responses for lengthy questionnaire (67/3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Telephone</td>
<td>50</td>
<td>23</td>
</tr>
<tr>
<td>Postal mail</td>
<td>13</td>
<td>22</td>
</tr>
</tbody>
</table>

N= 67 responses for lengthy questionnaire

Chi square value= 50.07

Chi square value of 50.07 is significant at 2df, 5% margin of error.

Therefore,

**AH 9. There is a significant difference** in the number of responses for simple and lengthy questionnaires received in the email survey, the telephone survey and postal mail survey.

Inference: The telephone interview, being the most effective survey tool, is also capable of collecting large amounts of data when compared to the email and the postal mail surveys.

*-*-*-*-*
**NH 10.** There is no significant difference in the number of completed responses and the number of incomplete responses for simple and complex questionnaires in the email survey.

**TABLE I.20. NULL HYPOTHESIS 10**

<table>
<thead>
<tr>
<th>Questionnaire type</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Complex</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

N= 9 responses

No statistical analysis used since the number of incomplete responses is 0 in three cells.

* * *

**NH 11.** There is no significant difference in the number of completed responses and the number of incomplete responses for simple and complex questionnaires in the telephone survey.

**TABLE I.21. NULL HYPOTHESIS 11**

<table>
<thead>
<tr>
<th>Questionnaire type</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>41</td>
<td>11</td>
<td>52</td>
</tr>
<tr>
<td>complex</td>
<td>42</td>
<td>21</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td>83</td>
<td>32</td>
<td>115</td>
</tr>
</tbody>
</table>

N= 115 responses (both complete and incomplete) for 150 interviews

Chi square value = 2.08.

Chi square value of 2.08 is **not significant** at 1df, 5% margin of error.
AH 11. Null Hypothesis 11 not rejected: There is no significant difference in the number of completed responses and the number of incomplete responses for simple and complex questionnaires in the telephone survey.

Inference: The number of incomplete telephone interviews is high enough to focus attention in this area. If the number of incomplete interviews are reduced significantly, the telephone will achieve higher response rates than it already has, thus making it even more effective.

*__*__*

NH 12. There is no significant difference in the number of completed responses and the number of incomplete responses for simple and complex questionnaires in the postal mail survey.

**TABLE I.22. NULL HYPOTHESIS 12**

<table>
<thead>
<tr>
<th>Questionnaire type</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>8</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>complex</td>
<td>12</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>6</td>
<td>26</td>
</tr>
</tbody>
</table>

N= 20 responses (complete and incomplete) for 150 postal mail questionnaires.

Chi square value = 0.17

Chi square value of 0.17 is not significant at 1df, 5% margin of error. **But expected values were less than 5 for the incomplete category.**

*__*__*
Inferences

Based on the statistical analysis, it may be inferred that:

1. **At an expected response rate of 60%**

   - The telephone interview is an effective survey tool.
   - The email questionnaire is a poor survey tool.
   - The postal mail questionnaire is a poor survey tool.

2. **The quality of the questionnaire**

   - does not influence the response within a particular tool

   - does not result in a significant difference in the number of responses received by simple and complex questionnaires within each survey mode.

However, the findings show that:

   - There is a significant difference in the responses of simple and short questionnaire received by email, postal mail and telephone modes: the telephone survey received a significantly larger number of responses for the simple and short questionnaire when compared to the other two survey modes.

   - There is a significant difference in the responses of the complex and medium length questionnaire received by email, postal mail and telephone modes: the telephone survey received a significantly larger number of responses for the complex and medium length questionnaire when compared to the other two survey modes.
3. Capacity to collect large amounts of data

- There is a significant difference in the number of responses of simple and lengthy questionnaire received by email, postal mail and telephone modes: the telephone survey received a significantly larger number of responses for the simple and lengthy questionnaire when compared to the other two survey modes.

- The telephone, therefore, has the capacity to collect large amounts of data.

- The simple and lengthy questionnaire received the least number of incomplete responses.

4. Time

- The telephone is unique among the three in that communication is synchronous. Actual interview time took less than 13 hours.

- The 13 responses to the email survey came in two weeks. The earliest response came in a day’s time.

- The 33 responses for the postal mail survey also took two weeks. The earliest response came after a few days of mailing the questionnaire.

5. Cost

- The email survey is the least expensive, costing Rs.30 for five online hours. One must not forget, however, that this is probably the only survey mode that results in some spending for the respondent also.

- The telephone survey cost Rs.389/- for the 12 hours, 40 minutes of interviewing.

- The postal mail proved to be the costliest, with an expense of Rs.2986.50.
Part II

Email questionnaire as a survey tool: The main study (Part I) resulted in the following data regarding the effectiveness of the email as a survey mode in terms of response, time and cost.

**TABLE II.1. RESPONSE TO EMAIL QUESTIONNAIRE AS A SURVEY TOOL: RESPONSE RATE, TIME AND COST**

<table>
<thead>
<tr>
<th>Questionnaire type</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>7</td>
<td>0</td>
<td>68</td>
<td>75</td>
</tr>
<tr>
<td>Complex</td>
<td>2</td>
<td>0</td>
<td>73</td>
<td>75</td>
</tr>
<tr>
<td>Lengthy</td>
<td>4</td>
<td>0</td>
<td>71</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>0</td>
<td>212</td>
<td>225</td>
</tr>
</tbody>
</table>

COST: Rs. 30 (6 Rs/hr *5hrs)  
TIME: 2 weeks

N= 225 email questionnaires

Though the email survey showed an appalling lack of responses, the speed of response is high and cost is low. This prompted the researcher to conduct three more studies to test if email can be an effective survey mode. Speed and cost are not important considerations for the following studies.

A. Effectiveness of the Gmail questionnaire with the ‘open as a google document’ option for response: A study among gmail users.

B. Effectiveness of email questionnaire as a survey tool– A study among members of Orkut, an online social network group.

C. Effectiveness of the email questionnaire as a survey tool- An experiment using purposive snowball sampling, mixed modes of contact and high topic salience.
Part II focuses on the above three experiments conducted to test the effectiveness of email questionnaire as a survey tool. The details of each are given below:

**STUDY A: Effectiveness of the Gmail questionnaire with the ‘open as a google document’ option for response: A study among Gmail users.**

The email questionnaire in the main study (Part I) was sent as an attachment and had to be copied and pasted or downloaded onto the system before filling it in, then sent back as an attachment. This was suspected to be a strong reason for lack of response.

The ‘open as a google document’ option in Gmail allows for editing of an attachment once the user opens it as a google document. Opening a questionnaire as a google document, answering it and mailing it back is simpler and quicker than clicking on a link to open the questionnaire on a website and answering it.

The Study A **objective** was therefore:

- to study if the ‘open as a google document’ option in Gmail would persuade email respondents to open it as a Google document, fill in the questionnaire and mail it back to the researcher.

**Methodology:** The experiment was used to test the effectiveness of the email questionnaire mailed to the Gmail user. A survey questionnaire on a relevant topic was emailed to respondents to study the effectiveness of the email questionnaire as a survey tool.

Effectiveness was studied in terms of response rate. The main study (Part I) showed that email was effective in terms of low cost and high speed of response. Therefore, cost and speed were not considered here.

**1. Mode**

Only one survey mode- the email was used. The tool used was the email questionnaire.
2. **Sampling**

Seventy five Gmail users were mailed the questionnaire. Their addresses were got through friends. They were also asked to comment on the experience of using the Google document to respond to questionnaires.

3. **Approach**

Pre-notification was not followed. The email questionnaire was sent as an attachment, which is supposed to have the same effect of pre-notification (Cho and La Rose, 1999). There were no reminder emails. Responses were sent a ‘thank you’ email.

4. **Personalisation**

Questionnaires were sent to 10 respondents at a time. Personalisation factor was present only in the self-introduction, where the researcher was identified as someone who had a mutual contact with the respondent.

The salutation used was ‘Dear respondent’.

The **subject line** said: Hi, this is just to know what you think of the news media.

The **introduction** was given as below:

Dear Respondent,

My apologies for using your email address.

I got your address from a mutual contact.

This survey is part of my Study that tries to understand what people think about news media today.

In the space given against each question, please fill in the answer number that is closest to your opinion about the news media. For questions without options, please key in your answer below the question in the space provided.

**All you have to do is open the attachment as a GOOGLE DOCUMENT, fill in your answers, and mail it back to me by selecting the email option.**
In the email window that opens, please also enter your observations about using the google document in the message box.

Your cooperation will be deeply appreciated.
Thanks,
Sandhya Rajasekhar
PhD candidate
University of Mysore.
Sandhyarajasekhar@gmail.com

5. The Questionnaire

Since there was no significant difference in the response rate among the type of questionnaires used for the email survey, a single questionnaire with 24 items was framed using the items of the original simple, complex and lengthy questionnaires.

6. Topic salience

Since email users in India are mostly educated youth, the topic ‘Public opinion on news media’ was considered relevant for the survey.

7. Findings

Anyone who has used the Google document will be aware of the extreme convenience it offers. The only drawback is that the user has to be online while he/she works on the file that is opened as a Google document. But with Internet access rates being quite low these days, this may not be a deterrent factor if the work is done in a few minutes.
i. Response rate

**TABLE II. 2. RESPONSE RATE TO GMAIL QUESTIONNAIRE**

<table>
<thead>
<tr>
<th>No. of Responses</th>
<th>Flaming</th>
<th>Mail delivery failure</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>70</td>
</tr>
</tbody>
</table>

N= 75

Of the 75 questionnaires sent via the email, only three were filled and returned within a few days. One respondent was a researcher, and the other two were students. One of the respondents was thankful that he got an opportunity to understand the uses of the Google document. There was also one flaming and one mail delivery failure.

**Inference**

The ease of use of email via the Google document was not persuasive in making the email users respond to the questionnaire.

**STUDY B: Effectiveness of email questionnaire as a survey tool— a study among members of Orkut, an online social network group.**

Tse et al (Sheehan and McMillan) reported a low response rate of 6 % for their 1995 email survey. On the other hand, a response rate of as high as 75 % has also been reported by Kieslier and Sproull, 1986 (Sheehan and McMillan). The email is known to be more effective as a survey mode when it comes to closed group surveys than for general population studies. Response rates to closed group surveys have ranged from 56% to 67% and even 76%. (Yun and Trumbo, 2000).

Study B checks out the effectiveness of using a closed online social network site for email survey. Social networking sites offer members a networked system for socialising with friends, for finding old friends and for making new friends online (Social Networking Websites Review 2008).
Members of online social networks form closed groups of friends and acquaintances. Forming a network of friends to share information, ideas, thoughts and expressions is the main reason why such sites are promoted. The researcher would not be unknown to the respondents. Relevance of the context and that of the person sending the message is an important aspect of this Study. Two important criteria - pre-notification and post-notification - were also included as part of the contact process.

Orkut is a social networking site that is arguably the most popular one used by Indians (a little more than 17% of Orkut’s members are Indian.) Orkut allows its members to look at profiles of others before they decide whether to add them as friends. All one needs is a Google account to register on Orkut.

More than 60% of Orkut members are in the age group of 18-25. Socialising with friends tops the reasons for registering at Orkut (www.orkut.co.in).

Objective: The objectives for the Study were as follows:

- To study the effectiveness of the email survey conducted among members of a closed online group, in terms of response rate.

- To study the effectiveness of the email survey conducted among members of a closed online group, in terms of speed of response

Hypothesis: NH1: There is no significant difference in the total number of responses and the total number of non-responses to the email survey by members of Orkut at the expected response rate of 60%.

Methodology: The experiment included an email survey being conducted among known members (‘friends’, ‘fans’) on Orkut. Since the researcher was newly introduced to Orkut, the friends list was short and ineligible for the research. A member who had more than 350 friends and 90 fans on Orkut (at the time of the research) volunteered to conduct the experiment for the researcher. A pre-test was conducted on three respondents outside the ‘fans’ group.
1. **Survey mode**

Modes of communication involved sending pre-notification and post-notification through Orkut. Regular email addresses of respondents were used for sending the questionnaire for data collection.

2. **Sampling**

Respondents selected for the experiment were ‘fans’ of the volunteer researcher. Of the 90 fans, one was not selected since his email id had been hacked. All other members were selected for the experiment.

Sample size for the study was 89.

3. **Approach**

A three contact approach using a single mode - online communication: Orkut for pre-notification and post-notification, email address for administering the survey - was adopted for the study.

The first step was to send a formal pre-notification on Orkut inviting the respondents to participate in an academic survey. This was sent in three batches.

The email questionnaire was sent as an attachment three days later for each of the batches, to a total of 86 respondents. Three of the 89 mailed in refusal to take part in the survey. Orkut gives a member the option of sending the questionnaire as a *scrap* or a *message*. Since both have a word limit of 1,024 characters, the questionnaire had to be divided into three components and sent. Pre-test respondents considered this irksome. Sending the questionnaire as an attachment to the email addresses of the members through the regular email platform was considered the best way of conducting the survey.

To those who did not respond to the questionnaire, post-notification was sent after one week of conducting the email survey using Orkut’s *message* option.
4. **Personalisation**

Pre-notification letters, the survey and post-notification to the 86 respondents were sent in three batches.

The salutation and letter were informal in style and tone.

The letter sent along with the attached questionnaire went thus:

Hey all,
I am sending this questionnaire assuming that you don’t mind taking part in this research, as I did not receive any mail saying that you will not be interested.
The questions will not take much of your time and I hope it will be interesting for you as well.
You could either open it as a *google document*, and save your changes and send it back to me selecting the email option.
Or you could download the word document and send it with your responses.
This is a questionnaire that studies people’s opinion on news media and it is part of an academic study.
Please send any recommendations or comments you have on the study.
Thanks and warm regards,
Romila : )

5. **The Questionnaire**

Since there was no significant difference in the response rate among the type of questionnaires used for the email survey, a single questionnaire with 24 items was framed using the items of the original simple, complex and lengthy questionnaires.

6. **Topic salience**

Members of online network sites like Orkut are educated and active with media use, at least with the Internet. The topic ‘Public opinion on news media’ was considered relevant for the survey.
7. Findings

i. Response rate: 38.8%

**TABLE II. 3. RESPONSE TO EMAIL SURVEY AMONG ORKUT MEMBERS**

<table>
<thead>
<tr>
<th>Pre-notification refusal</th>
<th>Mail delivery failure</th>
<th>Initial Response</th>
<th>Post-notification response</th>
<th>Total response</th>
<th>Actual sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>28</td>
<td>5</td>
<td>33</td>
<td>89 minus 3 refusals &amp; 1 delivery failure = 85</td>
</tr>
</tbody>
</table>

N= 85

ii. Response Time: While the first few responses came within minutes, the last ones came after two weeks, since the respondents were either out of town or the letters had gone to the spam section of the recipient’s mail box.

**Hypothesis**

NH1: There is no significant difference in the total number of responses and the total number of non-responses got by the email survey among members of Orkut at the expected response rate of 60%.

**TABLE II.4. CHI SQUARE TABLE FOR NH I**

<table>
<thead>
<tr>
<th>Email survey on Orkut</th>
<th>Observed frequency</th>
<th>Expected frequency at 60% response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Responses</td>
<td>33</td>
<td>51</td>
</tr>
<tr>
<td>No. of Non-responses</td>
<td>52</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>85</td>
<td>85</td>
</tr>
</tbody>
</table>

N= 85

Chi square value = 6.35.
The chi square value of 6.35 is significant at 1df, 5% margin of error. The Null Hypothesis is not accepted. Therefore, AH1. There is a significant difference in the total number of responses and the total number of non-responses got by the email survey among members of Orkut at the expected response rate of 60%.

**Inference**

Chi square value shows that the number of non-responses is significantly higher than the number of responses at the expected response rate of 60%.

Nevertheless, the response rate is considerably higher than those in the previous two studies conducted by the researcher.

**STUDY C. Effectiveness of the email questionnaire as a survey tool - an experiment using purposive snowball sampling, mixed modes of contact and high topic salience.**

Study C experiments on several important factors: purposive snowball sampling; mixed mode pre-notification and post-notification; and high topic salience.

**Objectives:** Study C had the following objectives:

- To study the effectiveness of the email survey using the purposive, snowball sampling method in achieving the desired number of responses.

- To study the effectiveness of the email survey using mixed mode pre-notification and post-notification approaches in achieving the desired number of responses.

- To study the effectiveness of the email survey with high topic salience in getting desired number of responses.

**Methodology:** A survey using the email as a tool was conducted among email users known to the researcher. Pre-notification was be done to get the assent of the
email user to respond to the questionnaire. Post-notification was also used to remind respondents who have not responded within one week. Pre-notification and post-notification were used in the first phase.

For the next phases, the selected respondents were asked to pre notify friends and mail them the questionnaire. They were also asked to post notify those who didn’t respond within the first one week. However, the researcher is not in control of pre-notification and post-notification in the second phase.

1. Survey mode

Email was the mode used for the survey. Mixed mode was used at different stages of contact. Pre-notification was done face to face, on telephone and/or through online chat. For post-notification, face to face, cell phone SMS and email methods were used.

2. Sampling

Sampling is purposive, because response can be expected to be high. An email survey was conducted among email users who are known to the researcher. Snowball sampling was also used to get more email users to respond. Acquaintances of the researcher who were pre-notified in person (face-to-face or telephone) and who agreed to respond to the questionnaire were, in turn, asked to send them to their friends after getting their assent.

The sample size of 50 was aimed at being reached in this manner.

The theory of reciprocity and several rules of message reception also helped the researcher decide to use the purposive snowball sampling method.

Another important reason for adopting the purposive snowball sampling was the success of the email as a survey mode for closed groups (which meant that either the sender is no stranger, or that coming from a member of the group gave the others a sense of security and responsibility to respond).
3. **Approach**

For phase I of the survey, a four-contact approach was adopted, using mixed mode communication. Mixed mode was used at the pre-notification and post-notification stages. Pre-notification was done with face to face, telephone and/or online chat. For post-notification, face to face and email were used.

i. **Pre-notification**: Pre-notification had two important objectives:

- To inform and get the consent of phase I respondents to take part in the survey
- To inform and get the acquiescence of phase I respondents to participate in the snowball sampling process.
- Online field aides for phase II were instructed to pre-notify friends to whom they planned to send the questionnaires, but it was difficult for the researcher to monitor this.

ii. **Questionnaire administration**: The questionnaires were sent as an attachment to whoever consented to respond.

iii. **Post-notification**: Post-notification had two important objectives:

- To remind phase I respondents to respond and mail back the questionnaire
- To remind phase I respondents to mail the questionnaires to their acquaintances.
- Online field assistants for phase II were instructed to post-notify friends to whom they planned to send the questionnaires, but it was difficult for the researcher to monitor this.

iv. **Thank you mails** were sent to those who responded in the phase I survey, and also to phase II respondents as and when the researcher received a completed response from them.
4. **Personalisation**

   Phase I email questionnaires were highly personalised. The subject line just said ‘questionnaire’ (since receivers were pre-notified and expected the questionnaire).
   
   The introduction ran thus:
   
   Hi, (name of respondent here, for phase I),
   
   This survey is an add-on to my PhD research. The purpose is to understand how email users respond to personal mails from strangers, to spam, bulk mail and questionnaires. All you have to do is download/copy-paste the questionnaire on to your desktop, fill in the questionnaire, save it and mail it back to me.

   If you are a **Gmail user, just open the attachment as a Google Document**, fill in the questionnaire and mail it back to me.

   The whole process should take you a few minutes.
   
   The format may change a little if you open it as a google document. My apologies.
   
   Thanks,

   Sandhya Rajasekhar
   Sandhyarajasekhar@gmail.com

5. **Topic Salience**

   The topic for the email survey, **‘Strangers in the inbox- A study on the attitude and response behaviour of email users towards mails from strangers, spam, bulk mail and forwards’**, is considered extremely relevant for an email study.

6. **The Questionnaire**

   The structured questionnaire consisted of 11 items apart from four questions relating to the demographic profile of the respondent. Except for three, all the other questions were close-ended with multiple options.

7. **Findings**

   i. **Response:** The number of responses received was 57 against the targeted sample size of 50.
ii. **Time taken:** The crucial factor in such a study is time. Responses came *within two days to a week of sending the email*. Experience shows that rarely, if ever, a response came after the first week.

However, the entire process can take considerably long, from three weeks to a month:

- Phase I survey with pre-notification and post-notification for responses took one week.
- Reminders to phase I online field aids to pre-notify phase II respondents takes a few days to a week.
- Pre-notifications and post-notification for responses in phase II takes one week.

iii. **Cost:** Cost incurred was negligible.

**Inference**

**Pre-notification** in the first phase is especially important because not only should the respondent consent to fill in the questionnaire, he/she should also send the questionnaire to other known people, make sure they fill it and then mail it back to the researcher. These phase I respondents, who, in turn, will send questionnaires to their friends will henceforth be called online field aides.

The number of non-responses in phase I are 6/24 respondents. Even though there was no hundred percent response rate in phase 1, 75% response rate is extremely high.

**Post-notification** was done several times to the same person to remind friends to respond. There was a higher response when online field aides requested their friends to mail it back to their email addresses, rather than to the researcher. Of the 18 who actually responded and sent email questionnaires to acquaintances, 12 were asked to conduct snowball sampling. Four of them made successful use of snowball sampling and got 39 more responses for the study.
The five non-responses in phase I were attributed to lack of time–four were students busy with examinations, and one lecturer, also busy with examinations. This happened despite the respondents being very willing to respond and one of them actually forwarded it to other friends. Despite several post-notifications, the researcher failed to get a response from them. But the researcher did get four responses from the lecturer who did not respond but had sent it to others.

For successful snowball sampling, a separate, personal letter from the online field aide was effective. Also, those online field aides who asked their respondents to send it to their (online field aide’s) email address rather than that of the researcher, also reported success.

Generally, responses from male respondents were slow/lacking.

The sample size achieved - 57, is much higher than what the original survey achieved- 13 of 225 emails and even what the Orkut survey achieved - 33 responses.
Part III

**Telephone interview as a survey tool:** This part focuses on the findings of the main Study (Part I). The telephone comes across as the most successful tool in the main Study, in terms of response rate and time. Even though it is not as inexpensive as the email, it is a cost-effective method. No further research was considered necessary.

**TABLE III. 1. TELEPHONE INTERVIEW AS A SURVEY TOOL: RESPONSE RATE, TIME AND COST**

<table>
<thead>
<tr>
<th>Questionnaire type</th>
<th>Complete Response</th>
<th>Incomplete Response</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>41</td>
<td>11</td>
<td>23</td>
<td>75</td>
</tr>
<tr>
<td>Complex</td>
<td>42</td>
<td>21</td>
<td>12</td>
<td>75</td>
</tr>
<tr>
<td>Lengthy</td>
<td>50</td>
<td>3</td>
<td>22</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>133</td>
<td>35</td>
<td>57</td>
<td>225</td>
</tr>
<tr>
<td>COST: Rs 389.</td>
<td>TIME: 12hrs, 40min</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N= 225 telephone interviews

**Incomplete responses**

As the table shows, the telephone received a large number of incomplete responses (35). The simple and complex questionnaires received more incomplete responses than the lengthy one. The complex questionnaire recorded the highest number of incomplete responses - exactly half the number of complete responses it received.

One area of focus for the researcher is to aim at reducing the number of incomplete responses for the telephone survey, thereby considerably increasing the response rate.
Non-responses

Looking at the number of non-responses, it can be said that the telephone would be more inexpensive than the postal mail survey even if one continues to make calls for interviews till the required sample size is reached.

**TABLE III. 2 PROFILE OF RESPONDENTS FOR TELEPHONE INTERVIEWS**

<table>
<thead>
<tr>
<th>Age</th>
<th>Simple and short questionnaire</th>
<th>Complex and medium length questionnaire</th>
<th>Simple and long questionnaire</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>7</td>
<td>4</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td>25-40</td>
<td>10</td>
<td>12</td>
<td>16</td>
<td>38</td>
</tr>
<tr>
<td>40-55</td>
<td>17</td>
<td>14</td>
<td>12</td>
<td>43</td>
</tr>
<tr>
<td>55 &amp; above</td>
<td>7</td>
<td>12</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
<td><strong>42</strong></td>
<td><strong>50</strong></td>
<td><strong>133</strong></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>22</td>
<td>25</td>
<td>73</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
<td><strong>42</strong></td>
<td><strong>50</strong></td>
<td><strong>133</strong></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+2</td>
<td>7</td>
<td>15</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>U G</td>
<td>15</td>
<td>19</td>
<td>13</td>
<td>47</td>
</tr>
<tr>
<td>P G</td>
<td>19</td>
<td>8</td>
<td>22</td>
<td>49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
<td><strong>42</strong></td>
<td><strong>50</strong></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td>Age</td>
<td>Simple and short questionnaire</td>
<td>Complex and medium length questionnaire</td>
<td>Simple and long questionnaire</td>
<td>Total</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------</td>
<td>----------------------------------------</td>
<td>------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial</td>
<td>16</td>
<td>5</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>Clerical</td>
<td>12</td>
<td>4</td>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td>Professional</td>
<td>5</td>
<td>8</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td>Self-employed</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Other (housewife, student etc)</td>
<td>3</td>
<td>20</td>
<td>14</td>
<td>37</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
<td><strong>42</strong></td>
<td><strong>50</strong></td>
<td><strong>133</strong></td>
</tr>
<tr>
<td>Income (in thousands)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-20,000</td>
<td>22</td>
<td>29</td>
<td>30</td>
<td>81</td>
</tr>
<tr>
<td>20-30,000</td>
<td>14</td>
<td>9</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>30-40,000</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>40,000&amp;above</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
<td><strong>42</strong></td>
<td><strong>50</strong></td>
<td><strong>133</strong></td>
</tr>
</tbody>
</table>

N= 133 responses

Most respondents are in the age group of 25 to 55 years. There are more female respondents than male and there more undergraduates and postgraduates than high-schoolers. Most of the respondents had a personal earning of 10,000/- to 20,000/- a month.
The simple and lengthy questionnaire

The telephone interview with a questionnaire similar to the lengthy questionnaire, may be helpful in getting a higher response rate. Field worker quality is not considered an extraneous variable because all three were done by competent people. In fact, the success of the complex questionnaire in achieving 42 completed questionnaires is partly due to the high efficiency of the field worker.

The researcher’s name and designation was disclosed to the respondent. It was also made clear that the study was for academic purposes only.

The lengthy questionnaire was broken down into three parts:

Part A: Demographic profile of the respondent
Part B: Exposure to different media
Part C: Opinion about the media they are exposed to; and expectations from news media.

The questionnaire is given below.
**PUBLIC OPINION ON NEWS MEDIA - A STUDY**

**Part A:** In the box provided on the right, please enter the answer number of the option that you fall within.

<table>
<thead>
<tr>
<th>A. Age</th>
<th>enter code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 18 -25 yrs</td>
<td></td>
</tr>
<tr>
<td>2 24 – 40 yrs</td>
<td></td>
</tr>
<tr>
<td>3 40 - 55 yrs</td>
<td></td>
</tr>
<tr>
<td>4 55 &amp; above</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Sex</th>
<th>enter code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Male</td>
<td></td>
</tr>
<tr>
<td>2 Female</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Education</th>
<th>enter code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 High School</td>
<td></td>
</tr>
<tr>
<td>2 Undergraduate</td>
<td></td>
</tr>
<tr>
<td>3 Post Graduate</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D. Occupation</th>
<th>enter code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Student</td>
<td></td>
</tr>
<tr>
<td>2 Managerial</td>
<td></td>
</tr>
<tr>
<td>3 Clerical</td>
<td></td>
</tr>
<tr>
<td>4 Professional</td>
<td></td>
</tr>
<tr>
<td>5 Self employed (business, consultancy etc)</td>
<td></td>
</tr>
<tr>
<td>6 Any other, pl specify</td>
<td></td>
</tr>
</tbody>
</table>

**Income (per month) not applicable for students unless earning**

<table>
<thead>
<tr>
<th>E.</th>
<th>enter code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 10,000 - 20,000 Rs</td>
<td></td>
</tr>
<tr>
<td>2 20,000 - 30,000Rs</td>
<td></td>
</tr>
<tr>
<td>3 30,000 - 40,000Rs</td>
<td></td>
</tr>
<tr>
<td>4 40,000 &amp; above</td>
<td></td>
</tr>
</tbody>
</table>

**Part B: In the box provided, enter yes or no**

<table>
<thead>
<tr>
<th>1</th>
<th>Do you read newspapers?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Do you read magazines?</td>
</tr>
<tr>
<td>3</td>
<td>Do you listen to radio?</td>
</tr>
</tbody>
</table>
4 | Do you watch TV news channels? 

5 | Do you visit online news sites? 

**Part C (Please answer only those questions that are applicable to you)**

6 | Which is your favourite newspaper?

7 | Why? (multiple choice)  
(please enter **yes** in the box against the statement/s with which you agree.  
Ignore the statement/s that you do not agree with)  
It gives timely news 
It is factual 
It is objective and balanced 
It is bold and exposes corruption etc. 
It gives importance to different kinds of stories 
It supports the political party that I support 
It has good language 
It has attractively designed pages 
It has a sense of social responsibility 
It gives a lot of local and regional news 
It has plenty of entertaining and human interest stories 
Any other, please specify

8 | Which is your favourite magazine?

9 | Why? (multiple choice)  
(please enter **yes** in the box against the statement/s with which you agree.  
Ignore the statement/s that you do not agree with)  
It gives a complete and accurate analysis of important news 
It is factual 
It is objective and balanced 
It is bold and exposes corruption etc. 
It gives importance to different kinds of stories 
It supports the political party that I support 
It has good language 
It has attractively designed pages 
It has a sense of social responsibility
| It gives a lot of local and regional news |  |
| It has plenty of entertaining and human interest stories |  |
| Any other, please specify |  |

10 Which is your favourite radio station?

|  |

11 Why? (multiple choice)  
(please enter yes in the box against the statement/s with which you agree.  
Ignore the statement/s that you do not agree with)  
It gives timely news  
It is factual  
It is objective and balanced  
It is bold and exposes corruption etc.  
It covers a variety of issues  
It supports the political party that I support  
It has good language  
The news readers and correspondents are good  
It has a sense of social responsibility  
It gives a lot of local and regional news  
It has plenty of entertaining and human interest programmes  
It gives a lot of live coverage of events  
Any other, please specify

|  |

12 Which is your favourite TV news channel?

|  |

13 Why? (multiple choice)  
(please enter yes in the box against the statement/s with which you agree.  
Ignore the statement/s that you do not agree with)  
It gives timely news  
It is factual  
It is objective and balanced  
It is bold and exposes corruption etc.  
It covers a variety of issues  
It supports the political party that I support  
It has good language  
It has a sense of social responsibility  
It gives a lot of local and regional news  
It has plenty of entertaining and human interest programmes  
It does actual coverage (visuals) of places and events  
It gives live coverage of important events
<table>
<thead>
<tr>
<th>Question</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 Which is your favourite online news site?</td>
<td>Have space for any other choice.</td>
</tr>
<tr>
<td>15 Why? (multiple choice)</td>
<td>Provide multiple choices for each statement and space for yes/no.</td>
</tr>
<tr>
<td></td>
<td>Options: It gives timely news, It is factual, It is objective and balanced, It is bold and exposes corruption etc., It gives importance to different kinds of stories, It supports the political party that I support, It has good language, It has attractively designed pages, It has a sense of social responsibility, It gives a lot of local and regional news, It has plenty of entertaining and human interest stories, It has a plenty of good pictures, Any other, please specify.</td>
</tr>
<tr>
<td>16 Can you think of any newspaper that you dislike? Please name it.</td>
<td>Space for any newspaper name.</td>
</tr>
<tr>
<td>17 Could you give one reason why you do not like it?</td>
<td>Space for any reason.</td>
</tr>
<tr>
<td>18 Can you think of any news magazine that you dislike? Please name it.</td>
<td>Space for any news magazine name.</td>
</tr>
<tr>
<td>19 Could you give one reason why you do not like it?</td>
<td>Space for any reason.</td>
</tr>
<tr>
<td>20 Can you think of any TV news channel that you dislike? Please name it.</td>
<td>Space for any TV news channel name.</td>
</tr>
<tr>
<td>21 Could you give one reason why you do not like it?</td>
<td>Space for any reason.</td>
</tr>
</tbody>
</table>
Can you think of any radio news station that you dislike?
Please name it.

Could you give one reason why you do not like it?

Can you think of any online news site that you dislike?
Please name it.

Could you give one reason why you do not like it?

Do you think the news media should have the following rights?
In the box given against each statement, please enter A to mean Always, S to mean Sometimes or N to mean Never.

1 The right to any kind of official information
2 The freedom to resort to any means to get information
3 The right to publish any kind of information irrespective of its consequences on internal (national) peace
4 The right to publish any kind of information irrespective of its consequences on national security

How essential is it for you to be informed about what is happening around the world?
(pl enter the answer no. in the box against the statement with which you agree)

1 Very essential
2 Somewhat essential
3 Not at all essential

Do the news media fulfill your need for information?
(pl enter the answer no. in the box against the statement with which you agree)
Close-ended items relating to the reasons why the respondent liked a particular medium were found to be tedious and a slightly irritating due to too many options (13). Also, it took more time since the options had to be repeated again in many cases. The researcher suggests that these questions may also be left open-ended so that the respondent has more chances to express himself/herself.

The success of the lengthy questionnaire in getting so few incomplete responses is mainly due to the fact that of the three types, this questionnaire allows for greater communication from the respondent with as many as 12 items being open-ended.

The interview was conducted ‘by the book’ so to say: the interviewer followed all rules of etiquette relating to communication on the telephone, starting with the introduction, getting permission to conduct the interview and, then, throughout the interview itself.
Part IV

Postal mail questionnaire as a survey tool: The last part focuses on the findings of the main Study (Part I) regarding the postal mail as a survey mode.

<table>
<thead>
<tr>
<th>Questionnaire type</th>
<th>Complete Responses</th>
<th>Incomplete Responses</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>8</td>
<td>3</td>
<td>64</td>
<td>75</td>
</tr>
<tr>
<td>Complex</td>
<td>12</td>
<td>3</td>
<td>60</td>
<td>75</td>
</tr>
<tr>
<td>Lengthy</td>
<td>13</td>
<td>0</td>
<td>62</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>6</td>
<td>186</td>
<td>225</td>
</tr>
</tbody>
</table>

COST: Rs. 2986.50
TIME: 2 weeks (2 responses in week 3)

N= 225 postal mail questionnaires.

- Response rate: 14.66%,
- Cost: Rs. 2986.50
- Time taken for response: Two weeks.

The postal mail proved to be ineffective in terms of response rate, cost and time taken. Further study was not considered necessary.