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# RESPONSE RATE IN INDUSTRIAL SURVEYS CONDUCTED IN INDIA: TRENDS AND IMPLICATIONS 

TN Krishnan ${ }^{1}$ Shobitha Poulose ${ }^{2}$

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## RESPONSE RATE IN INDUSTRIAL SURVEYS CONDUCTED IN INDIA: TRENDS AND IMPLICATIONS

Despite a growth in the number of India-focused articles appearing in leading business journals, there has not been an attempt to conduct systematic reviews of response rate in surveys conducted in India. India differs significantly from Western nations not only in its cultural norms but also in its practical difficulties of doing empirical research with the expectation that response rates are likely to be lower. This study examines the response rate for surveys undertaken in organizational and behavioural research with respondents based in India. We analyzed more than 2000 studies published in the years 2005 and 2010 in 26 refereed academic journals, and we identified 77 studies that utilized surveys in Indian context. Not all studies reported the response rate and only 46 of these had them reported. We examined the response rates in these 46 studies which covered more than 1000 organizational level respondents and 18500 individual respondents. The average response rate for studies that utilized data collected from individuals was 64.62 with a standard deviation of 22.1, while the average response rate for studies that utilized data collected from organizations was 13.31 with a standard deviation of 6.19 . There were few similarities to Western context. The use of non-monetary incentives was found to be associated with higher response rates while the use of reminders was related to lower response rates. The $R R$ is also significantly different for organization level as compared to individual level respondents. As contrasted to Western context however few differences were observed. The average response rate for an organizational level survey is significantly lesser while for individual level respondent groups it is significantly higher than the average figures reported in Western context. There are a significantly higher proportion of direct methods of survey data collection than through mail or web and these were also associated with a higher response rate than other modes. Further use of legitimate authority to request participation in the survey has been adopted in many studies and it has been associated with higher than average response rates. Implications and recommendations are discussed.

Key words: Response rate; India; survey; Research methods

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## INTRODUCTION

Organizational researchers use surveys as one of the predominant methodologies for gathering data. It is a method of gathering information or data in a consistent or systematic way. Data can be collected from an entire population or a sample from the population. While the former is referred to as Census and is generally carried out by the Governing authorities in ascertaining community or population specific statistics, the latter mode of getting data from a sample of population is often the general method of eliciting information in organizational and behavioural research. Organizational surveys can offer insights into variety of phenomena including individual attitudes and perceptions as well as organizational policies and practices (Baruch \& Holtom, 2008). Unless a questionnaire is compulsorily administered to a captive audience, rarely does one achieve a 100 percent response rate. In a survey where the respondents voluntarily participate, it is very rare that everyone responds to the questionnaire as it is up to the target population to decide whether to participate or not. One of the potential problems that the researchers face is in the large number of non-respondents to a survey. If we need to have dependable and credible results we need to have a high response rate from a wide representation of the whole population which is under consideration. If systematic differences between respondents and non-respondents are present, the findings of the study may not be generalizable to the entire population. If respondents differ from nonrespondents in their attitudes and beliefs, low response rates will make the survey unrepresentative of the population under study (Porter, 2004). This threatens the external validity of the conclusions drawn (Rogelberg \& Stanton, 2007). Higher response rates also lead to larger data samples and statistical power leading to a higher probability that the sample is representative of a population (Baruch \& Holtom, 2008). It leads to greater acceptance and credibility of the research findings among key stakeholders (Rogerlberg \& Stanton, 2007). On the other hand smaller data samples decreases statistical power, increases confidence interval and may constrain the type of statistical technique that can be used (Rogelberg \& Stanton, 2007). Response Rate for this study has been analyzed by the ratio: the number of usable questionnaires divided by those sent out. Despite the realization that high response rates are useful, two primary reasons for non-response are failure to deliver the questionnaires to the intended population and the reluctance of people to respond (Baruch, 1999). Non-response due to mail returns though not wide,
creates a problem especially under the scenario that there are increasing instances of employee mobility across organizations. Adequate preparation in terms of address checks and updating could mitigate the problem to a large extent. A more serious threat arises due to reluctance of the non-respondents due to various reasons such as respondents stating that they are too busy, the respondents feel that the survey is not relevant or when it was company policy to not respond to questionnaires (Baruch \& Holtom, 2008).

Although the study of response rate for various respondent groups has been done in western context for many years, it is very scant in cross national mail surveys (Harzing, 2000; Lyness \& Kropf, 2007) and largely non-existent in the Indian context. Even in a cross-national mail survey analysis, India has not been a referent for analyzing RR. There has been increasing interest in conducting cross-national surveys among researchers not only to understand the attitudinal differences across national geographies in a MNC context, but also amongst scholars who want to examine generalizability of their theories and research findings in different cultural contexts (Lyness \& Kropf, 2007). India is fast emerging as a destination for conducting and reporting large scale empirical research in top tier organizational journals. For instance the April 2012 special issue of Journal of World Business is focused on 'employment related research in the Indian context', the June 2010 issue of Human Resource Management was focused on studying 'emerging patterns of HRM in the new Indian economic environment' and a special issue in 2012 in The International Journal of Human Resource Management was devoted to 'HRM in the new economy in India'. Notwithstanding this there are significant challenges in undertaking empirical research in India and many of the Western management constructs and measures may not be applicable in Indian context (Varma and Budhwar, 2012). This provides tremendous scope and opportunity for doing high-quality empirical work in India.

One of the challenges in conducting survey research as indicated previously is the low response rates. Previous research looking at cross-national studies has indicated that response rates for mailed surveys typically differ across countries and respondents (as against non-respondent) are geographically and culturally closer to Netherlands (Harzing, 2000). Further Response rates from countries with high average power distance are lower than countries with low average power distance (Harzing, 2000). By this measure, studies conducted in India are expected to have lower response rates due to the high power
distance score for India (77) as compared to the USA (40) (Hofstede, 1980). Further the practical issues of reaching out to survey respondents are likely to be unique to Indian context. Baruch (1999) mentions two primary reasons for non-response. The first is that respondents did not receive the questionnaire while the second is the reluctance of the respondents to complete and return the survey. Both of these are likely to be more exaggerated in India. While organized directories and databases of companies and individuals are generally hard to get, these are much harder to come by in India. Secondly, Indians due to its collectivist norms are likely to prefer more personalized forms of information elicitation rather than a survey and hence are likely to less receptive to questionnaire surveys. However there has not been any systematic review on response rate to surveys in industrial samples undertaken in India. The lack of analysis and information on response rates of surveys done in India leads to a practice of justifying response rates by citing articles with similar response rates without establishing a summary expectation. Although this practice is reasonable in the absence of a more systematic review, it would be helpful to have a benchmark value and approaches to data enhancement techniques while surveying organizational employees in India. These norms could then assist those who conduct and review such research and also those who benefit from their findings. There is substantially less information on response rates in industrial samples as contrasted to samples in marketing, sociology and public opinion measurement (Roth \& BeVier, 1998). Our purpose hence is to analyze response rates in organizational studies done in India, assess long-term trends in response rates, at the same time look at differences between studies of individuals and organizations. Using a wide and comprehensive set of well regarded journals published in India and top rated journals from outside India in the areas of behavioural research, international business, small business management and organizational research, we analyze the factors that are likely to influence response rates to surveys conducted in India. Our research focuses on analyzing non-response by organizational representatives when the sampled unit is an organization, non-response when the sampled unit is a team/business unit and also nonresponse when the sampled unit is an employee in an organization. Though it might be tempting to specify a minimum level for response rates, response rate alone is neither an accurate nor a reliable proxy for study quality. Even when the response rates are high the potential for error still very much exists while non-response bias is not a foregone conclusion in the case of low response rate (Rogerlberg \& Stanton, 2007). Hence it could
be argued that $R R$ in itself is not a substitute for assessing study quality, at the same time it is one of the indicators to assess the potential contribution of a study (Campion, 1993). The standards do make a useful reference when it is combined with the information by the authors on the efforts they have put in to increase response rates and how they have taken care of the non-respondent bias.

## METHOD

## Rationale for journal selection

Since this is the first study to look at RR in Indian context, our aim was to have a comprehensive list of organization and behavioural science journals considered leaders in their domain and based out of India as well as abroad. To start with, we adopted the list of top ranked journals in management and behavioural science recommended by Baruch \& Holtom (2008). This list had 12 journals and covered a mix of US and non-US journals and also had a balance between micro and macro journals. These are Academy of Management Journal (AMJ), Administrative Science Quarterly (ASQ), Human Relations (HR), Human Resource Management (HRM), Journal of Applied Psychology (JAP), Journal of International Business Studies (JIBS), Journal of Management Studies (JMS), Journal of Vocational Behavior (JVB), Organization Studies (OrSt), Organizational Behavior and Human Decision Processes (OBHDP), Personnel Psychology (PP), Strategic Management Journal (SMJ).

Secondly, we tried to identify journals that had a focus on Asia Pacific and Indian contexts in Management and Behavioural research. Based on this criterion 2 journal were included: Asia Pacific Journal of Management (APJM) and Asia Pacific Journal of Human Resources (APJHR).

Thirdly we wanted to have a good representation of leading journals based out of India and that have been in circulation for at least ten years. For this we considered journals published by the leading public and private management institutes. Four established journals published by the Indian Institutes of Management at Ahmedabad (Vikalpa), Bangalore(IIMB Review) and Calcutta (Decision), and a leading private B-school MDI Gurgaon (Vision) were shortlisted. Further we decided to include the two leading journals focused on behavioural research in India namely Journal of Human Values (JHV), and Indian Journal of Industrial Relations (IJIR).

Fourthly we wanted to have Management journals that had a thematic consideration. Small business management and international business were two themes that we found that had well established journals and that also reported a number of India specific articles. We selected 3 top tier journals researching in the areas of small business management such as International Small Business Journal (ISBJ), Journal of Entrepreneurship (JoE), Journal of Small Business Management(JSBM). We also included 3 journals focused on International Management such as Journal of World Business (JWB), International Business Review (IBR), and Journal of International Management (JIM).

## Selecting India-based empirical studies

Considering this paper's focus on response rate of survey research in Indian context, we decided to include only full-length research articles, excluding dissertation abstracts, commentaries, introductions and editorials. We looked at all articles that reported response rates in 26 selected journals as listed above and these articles were published during the years 2005 and 2010. We excluded articles that reported data collected through interview and other qualitative methods and included only those which had questionnaire for data collection. These respondents were based in India, irrespective of the place of ownership of the company or the place of publication of the journal. We took these two years 2005 and 2010 as empirical work based out of India as publications in top journals has been majorly noted only in the last five to ten years. This is illustrated by the number of Special issues on India by leading journals in recent years. We also wanted to have a short time gap in order to understand whether there are any visible trends over this period. We analyzed more than 2000 studies published in these years - 930 studies in 2005 and 1092 studies in 2010. We identified 77 studies that utilized surveys in Indian context. Not all studies reported the response rate and only 46 of these had them reported. Our analysis and discussions is based on these 46 studies. This covered 18766 individual respondents and 1025 organization level respondents.

We excluded those articles that had respondents from multiple nationalities including India wherein the RR was not categorized as per their nationalities and hence it was difficult to ascertain the RR for respondents in India. However in case these were reported separately for Indians these were considered for RR calculation. In one study
involving three Asian countries including India, it was mentioned that the RR varied between 42 to $48 \%$ and the average was mentioned as $45 \%$. Considering the low gap and small number of relatively homogenous countries, this average was used in our analysis. We also looked at two independent surveys undertaken as part of a study in a single article as two independent response units for calculation of Response Rates. For instance 4 studies had two surveys each as part of their studies. It was ascertained that each of these were independently collected and had different sample groups in order to qualify as additional respondent groups. Some of the studies did not directly report the actual response rate. However these were calculated based on the figures mentioned for the number of usable responses and the number of questionnaires distributed. There were also studies that reported RR based on number of questionnaires returned divided by the number of questionnaires delivered. In these cases, RR was recalculated using the usable questionnaires as the numerator. This is in line with the suggestion of Baruch (1999) that researchers should use the number of usable questionnaires as the numerator while calculating response rate. We have also excluded studies that were suspected to be 'administered' where respondents could feel compelled to respond rather than doing so voluntarily. One of the studies had reported a response rate of close to 100 and it was also mentioned in this article that organizations were legally mandated to respond. Hence this was not included in analysis though it is used for reporting the number of studies covering organizational level responses.

The following information was collected wherever these were available. The bibliographical reference of the study, number of questionnaires distributed, number returned, number usable, actual response rate, type of respondent group, level of respondent group, gender ratio, size and industry sector of the relevant organization, use of incentives, use of reminders to improve RR, mode of data collection, sampling procedure (probability/non-probability). Each of the authors independently assessed the information collected. Wherever there were some difficulty and involved a judgment call, discussions were held to arrive at a consensus. For instance the mode of data collection sometimes involved a combination rather than one exclusive method; hence an additional category indicating a 'combined' mode of data collection was created. Similarly with regards to whether a RR was influenced, a detailed assessment was undertaken to decide whether or not to include a particular study. When studies sought information from
representatives of organizations to understand a Organization or Business Unit level phenomena it was coded as organization level research.

| Journal listing and number of studies reporting RR in Indian context |  |  |  |
| :--- | :---: | :---: | :---: |
| Journal Name | Year |  | Total |
|  | $\mathbf{2 0 0 5}$ | $\mathbf{2 0 1 0}$ |  |
| AMJ | 0 | 2 | 2 |
| Decision | 2 | 0 | 5 |
| HRM | 0 | 5 | 1 |
| Human Relations | 0 | 1 | 1 |
| IIMB Review | 1 | 0 | 17 |
| Indian Journal of Industrial Relations | 4 | 13 | 1 |
| International Business Review | 0 | 1 | 6 |
| Journal of Applied Psychology | 1 | 5 | 1 |
| Journal of Entrepreneurship | 0 | 1 | 1 |
| Journal of Human values | 1 | 0 | 2 |
| Journal of world business | 1 | 1 | 5 |
| Vikalpa | 2 | 3 | 2 |
| Vision | 0 | 2 | 46 |
| Total | 12 | 34 | 4 |

## RESULTS AND DISCUSSIONS

## Response Rate across journals

In ascertaining the $R R$ reported in various journals we found only 12 journals out of 26 referred journals had reported RR in Indian studies in the years 2005 and 2010. We started with understanding the descriptive results of RR across the different journal types. Since we had considered all the journals that were also reported by Baruch \& Holtom we did a comparative analysis of our results with the 'Top 12' journals considered by these authors. Further a comparison of India based journals and those based outside India was done in order to ascertain differences in RR.

| Journal | N | Present Study |  |  <br> Holtom (2008) |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | RR | SD | RR | SD |
| Academy of Management Journal | 2 | 75.00 | 26.87 | 48.80 | 21.50 |
| Decision | 2 | 60.84 | 17.20 |  |  |
| Human Resource Management | 5 | 47.25 | 29.84 | 33.30 | 18.30 |


| Human Relations | 1 | 95.00 |  | 44.10 | 22.40 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| IIMB Review | 1 | 11.11 |  |  |  |
| Indian Journal of Industrial Relations | 17 | 66.38 | 19.09 |  |  |
| International Business Review | 1 | 45.00 |  |  |  |
| Journal of Applied Psychology | 6 | 72.23 | 15.82 | 58.70 | 23.00 |
| Journal of Human values | 1 | 13.22 |  |  |  |
| Journal of world business | 2 | 62.00 | 11.31 |  |  |
| Vikalpa | 5 | 59.14 | 40.75 |  |  |
| Vision | 2 | 50.11 | 7.22 |  |  |
| Total | $\mathbf{4 5}$ | $\mathbf{6 1 . 2 0}$ | $\mathbf{2 5 . 0 0}$ |  |  |


| Journal <br> Esteem | N | Min | Max | Mean | SD | T-Test |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Top 12 | 14 | 20.3 | 100 | 65.3 | 25.6 | N S |
| Rest | 31 | 8.52 | 96.6 | 59.3 | 24.9 |  |


| Country of <br> Publication | $\mathbf{N}$ | Min | Max | Mean | SD | T-Test |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| India based <br> Journal | 28.0 | 8.5 | 96.6 | 59.7 | 26.0 | N S |
| Outside India <br> Journal | 17.0 | 20.3 | 100.0 | 63.7 | 23.8 |  |

We didn't find any significant difference between the Top 12 as suggested by Baruch and Holtom (2008) and the rest of the journals. The mean for the Top 12 journals come out to 65.3 while for the rest it is 59.3 , a statistically non-significant result. Similarly there is no significant difference in the RR reported by journals based in India and abroad. This is similar to the findings and explanations by Baruch \& Holtom (2008) and could be due to the fact that since RR is a relatively objective way of assessing study quality amongst many others and an acceptable RR may be required for publishing articles across a wide variety of journals. Further our sample list of journals included only those which were well regarded both inside and outside the country. Hence it unlikely that there is a significant variation amongst this relatively homogenous set of journals. A comparison of the means of the Top 12 journals in our study with that of Baruch \& Holtom (2008) revealed that our study sample had a higher RR than those reported by them for each of
the corresponding journals considered, though these were not statistically significant. This could be partly explained by the reason that our sample had predominantly individual level respondent samples while Baruch \& Holtom's has been a mixed sample.

## Level of respondents and RR over time

For researchers seeking firm-level information, top managers or executives become an important source to gather data. At the same time there has been a general recognition that studies targeting data from top level executives have a lower RR and these studies could still be published (Baruch \& Holtom, 2008). Due to heavy demands on their time, top managers may be less governed by norms of good citizenship, politeness or acquiescence to information requests than other respondent groups (Huber and Power, 1985). Further organizations could have explicit policies against revealing company level information to external constituencies which make it harder to get data from top executives. Individual respondents on the other hand typically respond to attitudinal and behavioural surveys which may not contain proprietary organizational information and hence are easier to obtain. Our result validates this perception and shows a statistically significant difference in the means of the RR obtained at individual and organizational level studies. The average response rate for studies that utilized data collected from individuals was 64.62 with a standard deviation of 22.1 , while the average response rate for studies that utilized data collected from organizations was 13.31 with a standard deviation of 6.19. The individual RR is higher than those reported by Baruch \& Holtom (2008) of 52.7 while the organizational level RR is lower than the reported 35.7.

| Level | $\mathbf{N}$ | Min | Max | Mean | SD | T-test |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Individual | 42 | 13.2 | 100.0 | 64.6 | 22.1 | $\mathrm{P}<.001$ |
| Organization | 3 | 8.5 | 20.3 | 13.3 | 6.2 |  |

Hence we wanted to understand whether these values at individual and organizational level are significantly different from those reported by the above authors. A t-test showed that there is in fact a statistically significant difference between our results and those reported by Baruch and Holtom. The sample for organizational level respondent has been small and hence making an emphatic statement on trends and differences may not be possible.

| Year and Level <br> wise statistics on <br> RR | $\mathbf{N}$ | Mean | Max | Min | SD |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 0 0 5}$ | $\mathbf{1 2}$ | $\mathbf{4 9 . 5}$ | $\mathbf{9 6 . 6}$ | $\mathbf{8 . 5}$ | $\mathbf{2 7 . 6}$ |
| Individual | 10 | 57.4 | 96.6 | 13.2 | 22.7 |
| Organization | 2 | 9.8 | 11.1 | 8.5 | 1.8 |
| $\mathbf{2 0 1 0}$ | $\mathbf{3 3}$ | $\mathbf{6 5 . 5}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{2 0 . 3}$ | $\mathbf{2 3 . 0}$ |
| Individual | 32 | 66.9 | 100.0 | 22.6 | 21.8 |
| Organization | 1 | 20.3 | 20.3 | 20.3 |  |
| Grand Total | $\mathbf{4 5}$ | $\mathbf{6 1 . 2}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{8 . 5}$ | $\mathbf{2 5 . 0}$ |

Several researchers have suggested that there is a decreasing trend of response rates over time (e.g. Baruch 1999; Rogerlberg \& Stanton, 2007). For instance Baruch (1999) reported that the typical response rate in top organizational research journals were $64.4 \%$ in 1975 but this dropped to $50 \%$ in 1995. The rising popularity of opinion polls, online surveys on various issues over surveying were perceived to have affected the rates (Weiner \& Dalessio, 2006 as in Rogelberg \& Stanton, 2007). There are some indications that the RR seems to have stabilized over time (Baruch \& Holtom, 2008). However, what is observed in our study is that there has been a increase in RR in 2010 compared to the 2005 period. However considering the limited number of studies considered, this may be ascertained with a larger sample population in order to make concrete recommendations.


## Mode of survey data collection

Surveys that are completed in person or on a drop-in basis have a much higher response rate than those of the traditional mail delivery (Baruch \& Holtom, 2008). In our study what was interesting was that almost $73 \%$ of the studies used Direct face-to-face as the predominant method of data collection. This is not inclusive of combination methods where both direct as well as email/postal surveys were used. In contrast, Baruch and Holtom (2008) in their study found that about $67 \%$ of the article had respondents through mail, while less than $7 \%$ were approached directly. It is also interesting to note that the direct method had higher than the average RR as compared to the overall sample. Though Postal survey had the highest RR the sample consisted of a single study. Further, this study reported that there was a token gift promised for respondents and also the management of the company was promised a copy of the report. There were only two studies that reported incentives for respondents and both of them had higher than average RR. Considering the single study and also other confounding factors, it would be hard to infer if the postal method of data collection in itself contributed to a higher RR.

| Mode of <br> distribution | N | Mean | Max | Min | SD |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Direct | 27 | 63.70 | 96.70 | 8.52 | 22.79 |
| Email | 3 | 35.89 | 76.25 | 11.11 | 35.26 |
| Postal | 1 | 96.60 | 96.60 | 96.60 |  |
| Combination | 6 | 45.22 | 75.36 | 13.22 | 21.10 |
| Not Mentioned | 9 |  |  |  |  |

With the availability of internet and social media along with the traditional ways of reaching out to potential respondents, one of the issues that confront researchers is to decide the feasibility of going online. Email surveys offer advantages such as shorter contact time, lower administrative costs and easier ways to capture and input the data. There has been mixed results in previous studies regarding the response rates from this mode of survey (Baruch, 1999). Our analysis shows that email scores low in eliciting RR as compared to other means.

## Reminders and response rates:

Follow-ups for mailed surveys are associated with increased response rates of about $10 \%$ in HRM-OB research (Roth \& BeVier, 1998). Previous research in mail surveys has
shown that the response rates are likely to be much higher for industrial surveys as compared to consumer groups and repeated contacts elicit a more positive response (Yammarino, Skinner \& Childers, 1991). Multiple contacts with respondents are focused on eliciting higher RR. Follow-ups were reported in 5 cases. Studies with follow-ups have been associated with low RR with an average of $39.5 \%$. Initiating follow-ups could be a consequence of the low response rate rather than the other way around. Hence nothing definitive can be stated about the relationship between the low RR and Reminder.

| Follow up | $\mathbf{N}$ | Min | Max | Mean | SD | T-test |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| No Follow up | 40.0 | 11.1 | 100.0 | 63.9 | 24.4 |  |
| Follow up | 5.0 | 8.5 | 59.3 | 39.5 | 20.2 |  |

## Incentives and Response Rates

Previous studies have indicated that Incentives could have a mixed effect on RR. In a study involving business executives, Keown (1985) found that monetary incentives increased response rate by 100 percent in the Japanese context whereas in Hong Kong, incentives did not increase the response rate and in fact there was a reduction.

There were no monetary incentives reported in any of our studies. Only 2 studies indicated non-monetary incentives in the form of gifts. Having non-monetary incentives has been associated with higher response rates than the average. These studies reported an average RR of $86 \%$. However since the numbers were small, it could be hard to conclude from any effects from this.

| Nonmonetary <br> incentives | $\mathbf{N}$ | Min | Max | Mean | SD | T-test |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| No Nonmonetary <br> Incentives | 43.0 | 8.5 | 100.0 | 60.0 | 24.9 | NS |
| Nonmonetary <br> Incentives | 2.0 | 75.4 | 96.6 | 86.0 | 15.0 |  |

## Type of respondents

We also looked at the type of respondent groups and classified into Managerial, NonManagerial, Combined and Student groups. There was one respondent group who were faculty in a college. This has been clubbed with the Managerial group since members of
faculty also handle administrative and managerial responsibilities in many instances. We didn't find any significant differences across these groups. Non-managerial and student groups had higher RR while RR for Managers and overall employee groups were lower.

| Respondent Type | $\mathbf{N}$ | Min | Max | Mean | SD | ANOVA |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Managerial | 21.0 | 13.2 | 100.0 | 63.2 | 24.3 |  |
| Non-Managerial | 4.0 | 57.0 | 96.7 | 81.1 | 18.3 | NS |
| Both Managers and <br> Non-Managers | 14.0 | 32.0 | 96.6 | 60.3 | 18.8 |  |
| Student | 3.0 | 48.7 | 95.6 | 72.4 | 23.5 |  |

## Industry Sector and Response Rate:

Baruch \& Holtom (2008) found that the highest RR is found to be in the service sector ( $62.1 \%$ ) and the lowest were in the studies where various sectors were included or where researchers did not report the sector (46.2\%). Our results show that the distribution across Industry sectors has been fairly even with Manufacturing and Education showing the highest RR while IT had the least RR.

| Sector or Industry | $\mathbf{N}$ | Mean | $\mathbf{M a x}$ | $\mathbf{M i n}$ | SD |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Education | 4 | 67.0 | 95.6 | 48.7 | 22.0 |
| IT Industry | 8 | 54.2 | 94.0 | 11.1 | 25.2 |
| Manufacturing Sector | 6 | 67.1 | 96.6 | 45.0 | 18.4 |
| Multiple Sectors | 17 | 60.9 | 95.0 | 8.5 | 26.8 |
| Service Sector | 10 | 61.4 | 100.0 | 22.6 | 29.1 |

## IMPLICATIONS AND RECOMMENDATIONS

Researchers facing low response rates could either use a variety of response enhancing techniques or weight the survey data for non-response (Porter, 2004). Having multiple survey mailings, incentives to respond or personal follow-ups help increase the response rate and has been widely followed but they could also drive up the costs. Weighting survey response could add complexity while it may not necessarily correct the bias due to low response rates. The theoretical framework to predict survey response could be divided into two groups - one based on reasoned action and the other considers it as a
psychological process viewing decision to participate as a heuristic one (Porter, 2004). The reasoned action approach relies on social exchange theory where three elements are critical for predicting a particular action: rewards, costs and trust (Dillman, 2000). In the context of survey administration it refers to the rewards the respondents expect participating in the survey, the costs associated with participation and whether perceived rewards outweigh perceived cost in the long run. By offering monetary or non-monetary incentives or a report based on the survey, one could increase the rewards of participation. Use of incentives as a reward has been few in our studies. No monetary incentives have been reported while non-monetary incentives were reported only in 2 cases. Though there was only couple of studies, it has been associated with a higher RR. While the respondents might be given token gifts, the management is also encouraged to support the survey with the promise of a copy of the report. As Afza (2005: 15), notes "The respondents were informed that for returning the completed questionnaires, they would be entitled to a token gift. The management of the participating companies was also promised a copy of the overall survey report for their internal evaluation and use". Costs for the respondent could be reduced by having a shorter questionnaire and ensuring anonymity for the survey. One consequence of routing the survey through Management or HR which in quite prevalent in India is that employees become apprehensive of whether the data is going to be used against them. This could be to a large extent reduced by giving assurances about the confidentiality of data and also meeting and explaining in person. This not only reduces cost but also increases trust. Highlighting the purpose of the study and assuring confidentiality of responses could lead to increased trust. For instance in the study by Aggarwal-Gupta and Kumar (2010: 60), the authors cite "The respondents were told about the purpose of this research and the voluntary nature of their participation. To encourage candid responses, both verbal and written assurances of confidentiality were given to potential respondents".

The psychological heuristics approach considers the norms of reciprocity, helping tendencies, compliance with legitimate authority and perceptions of scarcity (Groves, Cialdini and Cooper, 1992) as ways to increased response rates. Norms of reciprocity could explain why a token incentive may not outweigh the cost of participation but can still motivate the respondent to participate in the survey. The two studies that indicated token gifts, it is most likely that these do not outweigh the cost of participation reflected
in the respondent's time and effort filling up the survey. Past favours bestowed could also be reciprocated with positive action. Many studies have relied on friends and social group to solicit participation. Some respondents have a higher sense of social obligation, illustrating helping tendencies, motivating them to participate in a survey. This is very likely to be dispersed across a wide section of the respondent population. Request from higher ups or other legitimate authorities could also stir involvement, and this has been adopted in a number of studies in India. This could explain the reason why many surveys get routed through the organizational head. In our sample 10 studies had top management or HR communicating the survey and requesting participation. In studies that have reported a high response rate, the support from a legitimate authority is common. For instance in the study by Mellahi, Budhwar and Li (2010:36), the authors cite, "Although participation in the study was voluntary, given top management support for the research, we obtained a close to 100 percent response rate ". In another study that reported a high response rate (94\%), Anand et al (2010: 975) cite "One of the authors made presentations to top executives of all five organizations seeking their participation in the study. One of the senior HR executives in each organization then held meetings with employees and their managers to request their voluntary participation and assure them of confidentiality". Being part of a select group of respondents highlighting scarce opportunities are also likely to increase response rates.

The results show one significant difference in India compared to western context and that is in the mode of soliciting survey responses. It is found that direct ways of data collection are much more prevalent with more than $70 \%$ of the samples being collected by this mode. This is not including those cases where a combination method of data collection including direct modes is used. The average RR for direct mode is $63.7 \%$. This is higher than the average for the overall sample which was $61.2 \%$. Since Indians are socialized through strong family ties, they are more likely to develop stronger affiliative tendencies at the workplace. Hence a direct face-to-face method of data elicitation or a prior meeting brings in an element of familiarity and receptiveness and hence a higher response rate. This has been recognized by researchers who are familiar with the Indian context. For instance, Mellahi, Budhwar and Li (2010: 355) in their study of supervisory and line manager employees cite "Given the common problem of low response rate for
postal surveys in India, we approached 15 companies for access prior to sending out the questionnaires".

There could be other ways of ensuring respondent's participation in the survey. It is shown in previous research that interest level in the survey topic is one of the best predictors of a respondent's likelihood of completing a survey (Rogelberg \& Stanton, 2007). It is hard to find out if the Respondent group has a particular interest on the topic at hand. However if interest levels are related to attitudinal positions on the topic of the survey, the results are likely to be influenced. For instance in one study by Rogelberg \& Stanton (2000), it is found that non-respondents possessed greater intentions to quit, lower levels of organizational commitment, job satisfaction and satisfaction with supervisors than respondents. Hence it is suggested that researchers could include a few questions that examine respondents' interest towards the topic. If significant relationship exists between the interest of the respondent to the topic of the survey and the responses to the items pertaining to the topic, bias most likely exists in the respondent sample (Rogelberg \& Stanton, 2007). Hence non-response issues need to be kept in mind when designing the survey instruments and not done as a post-hoc analysis. However one of the most robust ways to demonstrate an absence of large nonresponse bias is to replicate the findings through various methods and across multiple data sets. (Rogelberg \& Stanton, 2007).

## CONCLUSIONS

The study has three strengths: First, it was informed by the response rates in western context and tried to understand to what extend are these true in India. There were few similarities. The RR is significantly different for organization level respondents as contrasted to individual level respondents. The use of non-monetary incentives was found to be associated with higher response rates while the use of reminders was related to lower response rates. As contrasted to Western context however few differences were observed. The average response rate for an organizational level survey is significantly lesser while for individual level respondent groups it is significantly higher than the average figures reported in Western context and direct method of data collection were more common. Second, it created some norms for response rates when the unit of analysis is an organization and also when it was an individual. The average $R R$ levels at
organizational level and individual level and confounding variables could serve as a norm for those who conduct and report survey results and also to reviewers as the norms established for surveys conducted in Western context does not hold here. Third, it suggested some procedures organizational researchers can use to improve response rates when they do survey research in India. While both Reasoned Action approach and Psychological Heuristics approach has an implication in Indian context, establishing trust and using legitimate authority holds higher salience here. There direct methods of survey data collection provides opportunities to explain the purpose of the study and assuring anonymity of survey, leading to higher trust. Further use of legitimate authority to request participation in the survey has been adopted in many studies and it has been associated with higher than average response rates. Future research could look at expanding this work to a larger base of studies.

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| RESPONSE RATE IN INDUSTRIAL SURVEYS CONDUCTED IN INDIA: TRENDS AND IMPLICATIONS |  |
| Author(s): | Institution(s) |
| T N Krishnan | Assistant Professor <br> Indian Institute of Management Kozhikode IIMK Campus PO-673 570, Kozhikode, Kerala, India, email: tn_krishnan@iimk.ac.in |
| Shobitha Poulose | Ph. D Research Scholar, NIT Calicut |
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| Abstract: <br> Despite a growth in the number of India-focused articles app attempt to conduct systematic reviews of response rate in sur Western nations not only in its cultural norms but also in its expectation that response rates are likely to be lower. This st organizational and behavioural research with respondents published in the years 2005 and 2010 in 26 refereed acad surveys in Indian context. Not all studies reported the resp examined the response rates in these 46 studies which cover 18500 individual respondents. The average response rate for 64.62 with a standard deviation of 22.1 , while the average resp organizations was 13.31 with a standard deviation of 6.19. non-monetary incentives was found to be associated with related to lower response rates. The RR is also significantly level respondents. As contrasted to Western context however rate for an organizational level survey is significantly less significantly higher than the average figures reported in West direct methods of survey data collection than through mail response rate than other modes. Further use of legitimate adopted in many studies and it has been associated with | aring in leading business journals, there has not been an rveys conducted in India. India differs significantly from practical difficulties of doing empirical research with the dy examines the response rate for surveys undertaken in based in India. We analyzed more than 2000 studies mic journals, and we identified 77 studies that utilized nse rate and only 46 of these had them reported. We more than 1000 organizational level respondents and studies that utilized data collected from individuals was response rate for studies that utilized data collected from There were few similarities to Western context. The use of higher response rates while the use of reminders was ifferent for organization level as compared to individual $r$ few differences were observed. The average response ser while for individual level respondent groups it is rn context. There are a significantly higher proportion of or web and these were also associated with a higher uthority to request participation in the survey has been higher than average response rates. Implications and |

Key Words/Phrases: Response rate; India; survey; Research methods


[^0]:    ${ }^{1}$ Assistant Professor, Indian Institute of Management Kozhikode, IIMK Campus PO, Kozhikode673570, email: tn_krishnan@iimk.ac.in

[^1]:    ${ }^{2}$ Ph.D. Research Scholar, NIT Calicut

