



REVIEW ARTICLE



Response rate in industrial surveys conducted in India: Trends and implications

T.N. Krishnan ^{a,*}, Shobitha Poulouse ^b

^a OB & HR Area, Indian Institute of Management Kozhikode, Kozhikode, Kerala, India

^b NIT Calicut, Calicut, Kerala, India

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Abstract Despite a growth in the number of India-focused articles appearing in leading business journals, there has not been a systematic review of response rate to 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. We analysed more than 2000 studies published in 26 refereed academic journals. We find that the average response rate for an organisational level survey is significantly lower while for individual level respondent groups it is significantly higher than those reported in the Western context. Results, implications and recommendations are discussed.

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Introduction

Organisational researchers use surveys as one of the predominant methodologies for gathering data. The survey is a method of gathering information or data in a consistent or systematic way. Data can be collected from an entire population or from a sample of 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 elic-

iting information in organisational and behavioural research. Organisational surveys can offer insights into a variety of phenomena including individual attitudes and perceptions as well as organisational policies and practices (Baruch & Holtom, 2008). In a survey where the respondents participate voluntarily, it is unusual that everyone responds to the questionnaire as it is up to the target audience to decide whether to participate or not. Unless a questionnaire is compulsorily administered to a captive audience, rarely does one achieve a 100 per cent response rate. Response rate (RR) here is the ratio of the number of usable questionnaires to those sent out and is an important factor in determining the quality of the study.

There are distinct benefits and limitations to using response rate as an indicator of study quality. The advantage of having high response rates is that it indicates larger data

* Corresponding author. Tel.: +91 4952809244; fax: +91 4952803010 11.

E-mail address: tn_krishnan@iimk.ac.in (T.N. Krishnan).

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samples and higher statistical power, leading to a greater probability that the sample is representative of a population (Baruch & Holtom, 2008). This improves acceptance and credibility of the research findings amongst key stakeholders. On the other hand, smaller data samples decrease statistical power, increase confidence interval and may constrain the type of statistical technique that can be used (Anseel, Lievens, Schollaert, & Choragwicka, 2010; Rogelberg & Stanton, 2007). If systematic differences between respondents and non-respondents are present, the findings of the study may not be generalisable to the entire population. This systematic difference between respondents and non-respondents becomes exacerbated as the number of respondents reduces. If respondents differ from non-respondents in their attitudes and beliefs, low response rates will make the survey unrepresentative of the population under study (Porter, 2004) and threaten the external validity of the conclusions drawn (Rogelberg & Stanton, 2007). However even when the response rates are high, the potential for error still exists while non-response bias is not a foregone conclusion in the case of low response rate (Cook, Heath & Thompson, 2000; Rogelberg & Stanton, 2007). Hence it could be argued that RR in itself is not the sole criterion for assessing study quality, but one of the indicators to assess the potential contribution of a study (Campion, 1993; Cook et al., 2000). The RR information makes a useful reference when 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.

Despite the realisation that high response rates are useful, two primary reasons for non-response are 1) failure to deliver the questionnaires to the intended population and 2) the reluctance of people to respond (Baruch, 1999). Non-response due to mail returns, though not widely prevalent, creates a problem especially when there are increasing instances of employee mobility across organisations. Adequate preparation in the form of address checks and updating could mitigate the problem to a large extent. Further the growth of Web connectivity makes it easier to reach out to an otherwise mobile workforce by administering questionnaire links to the respondents' email addresses. A more serious concern is the reluctance of non-respondents to respond due to reasons such as time constraint, topic irrelevance, or company policies to not participate in surveys (Baruch & Holtom, 2008).

Previous researchers have highlighted various ways to increase participation in employee surveys (Anseel et al., 2010; Cychota & Harrison, 2006; Roth & BeVier, 1998). Having multiple survey mailings, incentives to respond and personal follow-ups have been found to help increase the response rate (Cook et al., 2000) and have been widely followed. While some researchers (such as Yammarino, Skinner, & Childers, 1991) have found a significant positive relationship between follow-up and response rate, others have found either a non-significant (Roth & BeVier, 1998) or even a negative relationship (Baruch & Holtom, 2008). A similar finding exists between incentives and response rates wherein some have found a positive relationship while others have found a non-significant or even a negative relationship. In a study involving business executives, Keown (1985) found that monetary incentives increased response rate by 100 per cent in the Japanese context whereas in Hong Kong, incentives did not increase the response rate and in fact there was a reduction.

One possible reason could be that depending on the respondent type, some response enhancing techniques could be more effective than others (Anseel et al., 2010). Additionally both incentives and follow-ups could be a consequence of low response rate rather than a contributor to response rates.

The theoretical studies pertaining to survey response could be divided into two groups—one is based on reasoned action and the other considers response to surveys as a psychological process, viewing the decision to participate as a heuristic (Porter, 2004). The reasoned action approach relies on the 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 that the respondents expect by 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. Costs of participation in the survey are in the form of time, energy, and resources required to undertake the survey. This could be reduced by various means such as reducing the length of the questionnaire, soliciting information at a time and place convenient to the respondents, and making the questions precise and easy to read. The trust in a survey context could be established by alleviating apprehensions of any negative repercussions that may be feared because of participation. This could be partially addressed by ensuring anonymity to the respondents and also soliciting information through a social circle. The psychological heuristics approach considers the norms of reciprocity, helping tendencies, compliance with legitimate authority, and perceptions of scarcity (Groves, Cialdini, & Couper, 1992) as ways to increase 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. Helping tendencies are more intrinsic to the respondent groups, while compliance with authority could be a response to positional power. The survey would focus on understanding these theory derived influences in improving response rate.

Although the study of response rate for various respondent groups has been carried out in the Western context for many years, it is scant in cross national mail surveys (Harzing, 2000; Lyness & Kropf, 2007) and largely non-existent in the Indian context. Even in cross-national mail survey analysis, India has not been a referent for analysing RR. There has been an increasing interest in conducting cross-national surveys amongst researchers, not only to understand the attitudinal differences across national geographies in a multi-national context, but also amongst scholars who want to examine the generalisability of their theories and research findings to different cultural contexts (Lyness & Kropf, 2007).

India is fast emerging as a destination for conducting and reporting large scale empirical research in top tier organisational journals. For instance, the April 2012 special issue of *Journal of World Business* is focussed on "employment related research in the Indian context"; the June 2010 issue of *Human Resource Management* was focussed 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". Additionally, re-

searchers have highlighted that many of the Western management ideas and constructs may not be directly applicable to the Indian context (for example: Cappelli, Singh, Singh, & Useem, 2010; Varma & Budhwar, 2012). For instance, Björkman and Budhwar (2007) find that local adaptation of human resource practices to the Indian context is related to better firm performance for multi-national firms, while direct transplantation of practices by foreign firms results in a decreased performance. Similarly Cappelli et al. (2010) argue that Indian businesses, as contrasted to US businesses, focus on social mission and employee investment and do not have an exclusive pursuit of shareholder value maximisation. These findings are indicators of having context specific effects of management practices and provide tremendous scope and opportunity for doing high-quality empirical work focussed on India.

Notwithstanding this emergent interest, the need for and practical difficulties of reaching out to survey respondents are likely to be exaggerated in the Indian context. Firstly, while organised directories and databases of companies, individuals and work characteristics are generally difficult to locate, these are much more difficult to locate in India. For instance a popular database for organisational researchers in the US is the O*NET which provides detailed descriptions of the world of work. Various researchers have undertaken research based on this without the need to go to the field to collect such information. In the Indian context, without the extensive availability of such databases, researchers would have to compensate this deficiency through their own data gathering efforts. Secondly, compared to other areas of economic progress, India lags in infrastructural development in contrast not only to developed economies but also to other developing economies such as China. This makes it more difficult to reach out physically to respondent groups and hence to conduct surveys. Thirdly, response rates are likely to vary with socio cultural norms of countries whereby nations with high average power distance are likely to have lower response rates compared to countries with low average power distance (Harzing, 2000). Prior research looking at cross-national studies has indicated that respondents (as against non-respondents) are geographically and culturally closer to the Netherlands (Harzing, 2000). Countries such as Switzerland, Sweden and Finland, which have a similar power distance score as that of the Netherlands and are also geographically close, have response rates that are nearer to that obtained in Holland. 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 US (40) or the Netherlands (38) (Hofstede, Hofstede, & Minkov, 2010).

Given the challenges just cited and the submission made earlier that response rate is an important parameter affecting the quality of survey research findings, it would be relevant to find the level of response rate across time and across respondent groups and ways to increase response rates for surveys conducted in India. To the best of our knowledge, there has not been any systematic review on response rate or ways to increase the number of respondents to survey studies in India. The lack of analysis and information leads to the 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 improve response rates given the context specificity of research and challenges of doing survey research in India. These norms could then assist those who conduct such research, those who review such research, and also those who benefit from their findings. There is substantially less information on response rates in industrial samples in marketing, sociology and public opinion measurement (Roth & BeVier, 1998). Our purpose hence is to analyse response rates in organisational studies done in India, assess long-term trends in response rates, and at the same time look at differences between studies of individuals and organisations. 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, strategy, international business, small business management and organisational research, we analyse the factors that are likely to influence response rates. Our research focuses on analysing non-response by organisational representatives when the sampled unit is an organisation, non-response when the sampled unit is a team/business unit and also non-response when the sampled unit is an employee in an organisation.

Method

Rationale for journal selection

Since this is the first study to look at RR in the Indian context, our aim was to have a comprehensive list of organisation and behavioural science journals considered leaders in their domain and based out of India as well as overseas. To start with, we adopted the list of top ranked journals in management and behavioural science recommended by Baruch and Holtom (2008). This list has 12 journals and covers a mix of US and non-US journals, and also has 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), and Strategic Management Journal (SMJ).

Secondly, we tried to identify journals that had a focus on the Asia Pacific and Indian contexts in management and behavioural research. Based on this criterion, two journals 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 those 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 Management Review) and Calcutta (Decision), and a leading private B-school MDI Gurgaon (Vision) were shortlisted. Further we decided to include the two leading journals focussed 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, have been in circulation for at least ten years, and had a good representation of studies done in India. For this, journals in the area of small business and international business were considered. Small businesses have long been an important part of the Indian economy representing over 95% of all organisations in India. Many Indian companies have embarked on global expansion in the last decade, while interest amongst foreign investors to invest in India has grown in the same period making international business an interesting and contemporary area of research. Small business management and international business were two themes that we found had well established journals and that also reported a number of India specific articles. A few of these have had India specific issues as well. We selected three top tier journals researching in the areas of small business management—International Small Business Journal (ISBJ), Journal of Entrepreneurship (JoE), and Journal of Small Business Management (JSBM). We also included three journals focussed on international management, these being 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 the 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 the 26 selected journals as listed above, and those articles which were published in 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 focussed on the two years 2005 and 2010, as empirical work based out of India in the form of publications in top journals has been considerably 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 were any visible trends over this period. We analysed more than 2000 studies published in these years—930 studies in 2005 and 1092 studies in 2010. We also looked at articles published in a sample of journals in 2004 and 2011 in order to ensure that there were no anomalous results due to the years considered for this study. We identified 77 studies that utilised surveys in the Indian context. Only 46 out of the 77 studies reported response rates. Our analysis and discussions are based on these 46 studies. This covered 18,766 individual respondents and 1025 organisation level respondents.

We excluded those articles that had respondents from multiple nationalities including India wherein the RR was not categorised as per the nationalities of the respondents and hence it was difficult to ascertain the RR for respondents in India. However, in case these were reported separately for Indians, the articles were considered for RR calculation. In

one study involving three Asian countries including India, it was mentioned that the RR varied between 42 and 48% and the average was mentioned as 45%. Considering the low range and the 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 four studies had two surveys each as part of their studies. It was ascertained that each of these was 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 might 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 that organisations were legally mandated to respond. Hence, this was not included in our analysis though it is used for reporting the number of studies covering organisational level responses.

The following information was collected wherever 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 organisation, use of incentives, use of reminders to improve RR, mode of data collection, and sampling procedure (probability/non-probability). Each of the authors independently assessed the information collected. Wherever some difficulty was encountered and involved a judgement 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 regard to whether an 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 organisations to understand an organisation or business unit level phenomenon, it was coded as organisation level research.

Results and discussions

Response rate across journals

In ascertaining the RR reported in various journals, we found only 12 journals out of 26 referred journals had reported RR amongst Indian respondents in the years 2005 and 2010 (see Table 1). We started by looking at the descriptive results of RR across the different journal types. Since we had considered all the journals that were also reported by Baruch and Holtom, we did a comparative analysis of our results with the

Table 1 Response rate across journals.

Journal	2005	2010	N	Present study		Baruch and Holtom (2008)	
				RR	SD	RR	SD
Academy of Management Journal	0	2	2	75	26.87	48.8	21.5
Decision	2	0	2	60.84	17.2		
Human Resource Management	0	5	5	47.25	29.84	33.3	18.3
Human Relations	0	1	1	95		44.1	22.4
IIMB Management Review	1	0	1	11.11			
Indian Journal of Industrial Relations	4	13	17	66.38	19.09		
International Business Review	0	1	1	45			
Journal of Applied Psychology	1	5	6	72.23	15.82	58.7	23
Journal of Human values	1	0	1	13.22			
Journal of world business	1	1	2	62	11.31		
Vikalpa	2	3	5	59.14	40.75		
Vision	0	2	2	50.11	7.22		

RR, response rate; SD, standard deviation.

Table 2 Response rate statistics and significance test.

Overall analysis	N	Min	Max	Mean	SD	T-Test
Year						
2005	12	8.5	96.6	49.5	27.6	NS
2010	33	20.3	100	65.5	23.0	
Journal esteem						
Top 12	14	20.3	100	65.3	25.6	NS
Rest	31	8.52	96.6	59.3	24.9	
Country of journal publication						
India based journal	28	8.5	96.6	59.7	26.0	NS
Outside India journal	17	20.3	100.0	63.7	23.8	
Level of respondents						
Individual	42	13.2	100.0	64.6	22.1	P < .001
Organisation	3	8.5	20.3	13.3	6.2	
Follow-up						
No follow-up	40	11.1	100.0	63.9	24.4	P < .05
Follow-up	5	8.5	59.3	39.5	20.2	
Non-monetary incentive						
No non-monetary incentive	43	8.5	100.0	60.0	24.9	NS
Non-monetary incentive	2	75.4	96.6	86.0	15.0	

NS, Non significant.

“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.

We did not find any significant difference between the Top 12 as suggested by Baruch and Holtom (2008) and the rest of the journals (see Table 2). The mean for the Top 12 journals was 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 and Holtom (2008) and could be due to the fact that RR is a relatively objective way of assessing study quality amongst many other indicators, 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

is unlikely that there would be a significant variation within this relatively homogenous set of journals. A comparison of the means of the Top 12 journals in our study with that of Baruch and Holtom (2008) revealed that our study sample had a higher RR than those reported by them for each of the corresponding journals considered, although these were not statistically significant. This could be partly explained by the reason that our sample had predominantly individual level respondent samples while Baruch and Holtom’s was a mixed sample with both individual level and organisational level respondents.

Level of respondents and RR over time

For researchers seeking firm-level information, top managers or executives become an important source of data. At the

Table 3 Level and year wise statistics on response rate.

Level and year wise statistics on RR	N	Mean	Max	Min	SD	T-test
Individual	42	64.62	100	13	22.11	
2005	10	57.4	96.6	13.2	22.7	NS
2010	32	66.9	100.0	22.6	21.8	
Organisation	3	13.31	20	9	6.19	
2005	2	9.8	11.1	8.5	1.8	NS
2010	1	20.3	20.3	20.3		

same time there has been a general recognition that studies targeting data from top level executives have a lower RR but that 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 & Power, 1985). Further, organisations 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 organisational 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 organisational level studies. The average response rate for studies that utilised data collected from individuals was 64.62 with a standard deviation of 22.1, while the average response rate for studies that utilised data collected from organisations was 13.31 with a standard deviation of 6.19 (Table 3). The individual RR is higher than 52.7 reported by Baruch and Holtom (2008) while the organisational level RR is lower than the reported 35.7. We wanted to understand whether these values at individual and organisational level are significantly different from those reported by Baruch and Holtom (2008). A t-test showed that there is in fact a statistically significant difference between our results and those reported by Baruch and Holtom. While the RR for organisational level respondents is significantly lower, the RR for individual level respondents is significantly higher. Organisations in India have reported one of the highest differentials between the chief executive pay and the minimum wage earned by entry level graduates in recent times (Goyal, 2012). The high differential in pay illustrates the big gap between supply of executives and demand for executives at the senior level positions in India. This can impose huge demands on the time availability of executives and hence could reflect in a lower response rate for organisational level studies, many of which have senior managers as the respondent group. Increasing instances of opinion polls, online surveys and the like, which have affected the interest of respondents in the West, has not been so influential in India and could partly explain the higher response rate for individual level respondent groups.

Several researchers have suggested that there is a decreasing trend of response rates over time (e.g. Baruch, 1999; Rogelberg & Stanton, 2007). For instance, Baruch (1999) reported that the typical response rate in top organisational re-

search journals was 64.4% in 1975 but this dropped to 50% in 1995. The rising popularity of opinion polls, online surveys on various issues, and over surveying were perceived to have affected the rates (Rogelberg & Stanton, 2007; Weiner & Dalessio, 2006). There are some indications that the RR seems to have stabilised over time (Baruch & Holtom, 2008). However, what is observed in our study is that there has been an increase in RR in 2010 compared to 2005. 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 conducted through traditional mail delivery (Baruch & Holtom, 2008). In our study, what was interesting was that almost 73% of the studies used direct face-to-face survey 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 articles had approached 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, although postal survey had the highest RR in the sample for a single study. Further, this study (Baruch & Holtom, 2008) reported that there was a token gift promised to respondents and 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.

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. Here email surveys include both Internet based surveys and responses sought through direct email contact. There have been mixed results in previous studies regarding the response rates from this mode of survey (Baruch, 1999; Shih & Fan, 2008). Our analysis shows that email scores low in eliciting RR as compared to other means (see Table 4).

Table 4 Response rate by mode of distribution.

Mode of 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				

Follow-ups and response rates

Follow-ups for mailed surveys are associated with increased response rates of about 10% in Human Resource Management-Organisational Behaviour (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 et al., 1991). Multiple contacts with respondents are focussed on eliciting higher RR. Follow-ups were reported in five cases. Studies with follow-ups have been associated with low RR with an average of 39.5%. When surveyors find that the initial contact has not resulted in the expected response rate, they put in additional efforts by reminding and following up with the respondent group. Researchers could be increasing efforts through follow-up when they are faced with low response rates. Hence it is likely that those studies which have adopted follow-ups face a situation of low RR to start with and this may not be compensated in spite of additional reminders. This is similar to other findings where follow-up is associated with either non-significant results (Roth & BeVier, 1998) or negative relationship (Baruch & Holtom, 2008) with response rate.

Incentives and response rates

Prior studies have indicated that incentives could have a mixed effect on RR. There were no monetary incentives reported in any of the studies we selected. Only two studies indicated non-monetary incentives in the form of gifts. Having non-monetary incentives has traditionally been associated with higher response rates than the average, and these studies reported an average RR of 86%. However since the numbers were small, it could be hard to conclude higher effects of non-monetary incentives on response rates.

Type of respondents

We also looked at the type of respondent groups and classified them into managerial, non-managerial, combined, and student groups (Table 5). There was one respondent group which comprised 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 did not 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. This is similar to the findings of Anseel et al. (2010)

who found that lowest RR was reported for executive respondents while non-working respondents and non-managerial respondents had the highest RR.

Industry sector and response rate

Baruch and Holtom (2008) found that the highest RR is found in the service sector (62.1%) and the lowest is 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 information technology (IT) had the least RR (Table 6).

Implications and recommendations

The reasoned action approach considers the rewards, costs, and trust issues that help increase participation. There have been very few instances of use of incentives as a reward in our sample of studies. No monetary incentives have been reported while non-monetary incentives were reported only in two cases. Although there were only a couple of studies, use of incentives has been traditionally associated with a higher RR. While the respondents may be given token gifts, the management is also encouraged to support the survey with the promise of a copy of the report (Afza, 2005). 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 top management or human resource department, which is quite prevalent in India, is that employees become apprehensive about whether the data are going to be used against them. From an employee's point of view, this is one of the costs of participating in the survey. This could be reduced to a large extent by giving assurances about the confidentiality of data, and also meeting respondents in person and explaining the nature of the study. This not only has an effect on 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, p 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".

Norms of reciprocity and compliance with legitimate authority are ways to increase response rates as per the psychological heuristics approach. In the two studies which mentioned that token gifts were given to respondents, it is most likely that these do not outweigh the cost of participation reflected in the respondent's time and effort in filling up the survey but a reciprocation of a favour given. The norms of reciprocity also suggest that past favours bestowed could be reciprocated with positive action. Our analysis shows that many studies have relied on friends and social groups to solicit participation. These are individuals who are most likely to feel obliged to respond due to a past favour bestowed. This helps to personalise the communication and is an effective way to increase RR (Anseel et al., 2010). Request from higher ups or other legitimate authorities could also affect

Table 5 Response rate by type of respondents.

Respondent type	N	Min	Max	Mean	SD	ANOVA
Managerial	21	13.2	100	63.2	24.3	NS
Non-managerial	4	57.0	96.7	81.1	18.3	
Both managers and non-managers	14	32.0	96.6	60.3	18.8	
Students	3	48.7	95.6	72.4	23.5	

Table 6 Response rate by sector or industry.

Sector or industry	N	Mean	Max	Min	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

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 organisational head. In our sample, 10 studies had top management or human resource departments communicating the purpose of 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, p 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, p 975) cite "One of the authors made presentations to top executives of all five organisations seeking their participation in the study. One of the senior HR executives in each organisation then held meetings with employees and their managers to request their voluntary participation and assure them of confidentiality". Here the willingness to comply with a request depends on the extent to which similar others would comply with it, and hence a legitimate authority especially in the Indian context plays a major role in garnering such social validation. While it was not possible to gather the effect of sponsor institutions on the response rate from the published studies, it is not hard to imagine that the status and reputation of the sponsoring institution does have a role in eliciting response to a survey in India.

The results show another significant difference in India compared to the 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 in India with more than 70% of the samples being collected by this mode. This does not include those cases where a combination method of data collection including direct modes was 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 socialised through strong family ties, they are more likely to develop stronger affinities 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 leading to a higher response rate. The direct interaction also helps

to personalise the communication with respondents and helps increase RR. This could become increasingly important in the future as personalisation was found to be increasingly effective over the years (Anseel et al., 2010). Table 7 summarises recommendations for improving response rate for empirical research in India.

The foregoing discussions illustrate that both reasoned action and psychological heuristics approaches are relevant in enhancing response rates in India. However in contrast to the West, the psychological heuristics approach seems to be more salient in eliciting good response rates.

Limitations and directions for future research

The study has a few limitations. First, though we considered a wide range of journals, the articles analysed were limited to only two years. This makes it only an initial study to analyse and establish standards for response rates in the Indian context. Future research could look at expanding this work to a larger base of studies. We have however analysed a sample of articles pertaining to two additional years to make sure that the results were not anomalous. Second, there are three times as many articles reported for the year 2010 as compared to 2005, making the former more salient in the results. Though we did not find any statistically significant difference in RR across these years, a more even and more comprehensive set of years could give greater confidence to the results.

Conclusions

The study has three strengths: First, it was informed by the response rates in the Western context and tried to understand to what extent these were applicable in India. Our findings suggest that existing guidelines for designing effective survey research as developed in the Western context may not always provide the best information available. As contrasted to findings in the Anglo-Saxon context, the average response rate for an organisational level survey is significantly lower, while for individual level respondent groups it is significantly higher than the average figures reported in the West. Further, direct method of data collection was more common and use of legitimate authority and personalisation helps significantly in India. However, there were a few similarities. The RR is significantly different for organisation 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. Second, it created some norms

Table 7 Recommendations for improving response rate for empirical research in India.

Use direct face-to-face questionnaire data elicitation	Helps establish familiarity and receptiveness Helps personalise the communication with respondents
Norms of reciprocity are significant in motivating respondents	Use social/friends' circle Token gifts encourage reciprocation
Use legitimate authority to increase response rates	Routing the survey through top management or HR department
Enhance rewards of participation by providing non-monetary incentives to both respondents and their organisations	Small gifts for motivating respondents Copy of report or other such non-monetary incentives for employers
Reduce costs of participation for both respondents and their organisations	Ensure anonymity of the respondents
Establish trust with both respondents and their organisations	Assure the organisation on data confidentiality Giving personal assurances and clearly explaining the purpose of study through direct face-to-face interaction Route the survey after clearance of the top management or HR department.

for response rates when the unit of analysis was an organisation and also when it was an individual. Again, the standards that are presently adopted are based on reported work done in the West, while these are not quite applicable in India. The average RR levels at organisational 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 the US and European context are not quite relevant here. Third, it suggested some procedures organisational researchers can use to improve response rates when they do survey research in India. While both reasoned action approach and psychological heuristics approach have an implication in the Indian context, establishing trust and using legitimate authority are more salient here. These direct methods of survey data collection provide opportunities to explain the purpose of the study and assure 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.

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