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# Reconceptualising the Objectives of a Pilot Study for Understanding Employers' Perception on Online Recruitment in MSMEs

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**Abstract:** *This paper is a methodological study wherein the objectives of a pilot study has been reconceptualised and used to analyse the link between a successful pilot study and forestalled main study to identify potential methodological weaknesses in the planning phase. The empirical findings of the study demonstrate the reliability and validity of the survey tool questionnaire therein framed to study the employers' perception on online recruitment process in MSMEs. The pilot study, an important prelude to the main research planning, thus confirms the appropriateness of design and operational processes for the major study.*

**Keywords:** *Pilot study; MSME, Online Recruitment, Research Planning, Reliability, Validity, Questionnaire*

## I. INTRODUCTION

The obvious goal of all researchers is to achieve the aims and objectives of the research topic in discussion and throw some light to the existing literature in the arena of research. Integral to this are the challenges of setting up a research project related to involvement of entrepreneurs and gauging their behavioral and psychological issues related to their sourcing of manpower pattern wherein the quality of the research design may compromise the efficacy of the findings. Furthermore, all of these factors rely upon meticulous preparation and planning before embarking upon survey research. The pilot study is vital to this preparation of the main study at its transitional stage between the planning and the operational phase. Notwithstanding the pre-eminence of the pilot study to the success of the main research process this research paper is limited in terms of providing guidance and rationale for conducting a pilot study and reconceptualising the objectives of the same. This paper will analyse the results of a specific pilot study and discuss the contributions that the pilot made to the larger study in focus. Further, the paper will demonstrate the need of researcher to be open to the value of both the expected and unanticipated findings of a pilot study to research planning.

## II. VALUE OF A PILOT STUDY

There is an agreement in the literature that the inclusion of pilot studies is important for a research due to varied reasons. The reasons, however, are mostly related either to the trial of a study design and/or testing of a new instrument ([Roberts and Taylor (1997)]; [Koch and Rowell (1997)]; [Summers (1993)]). According to the Oxford it is a small-scale test of a research project to evaluate its design. Pilot studies are frequently conducted in a way to minimize the risks (check for potential errors) involved in large-scale survey research. Furthermore, it establishes that the collection of data is done to absolutely understand the research protocol and consistency in data collection processes [Baird (2000)]. Nevertheless, the term pilot study is frequently mentioned in research reports, as it serves a range of other functions related to the success of a research project.

The publication of a pilot study can establish the credibility of the researcher and provide information to funding bodies and ethics committees about the direction in which the research work is being conducted. Additionally, while not a major contribution in its statistical or theoretical capacity, the publication of a pilot study can contribute to the advancement of the topic under discussion. A researcher, likewise, undertakes a program of study in a specific field and uses a pilot study and its publication to inform other academicians, researchers and professionals of the author's research domain which may encourage sharing of relevant information thus promoting research collaboration. However, one of the most valuable outcomes of publication of the pilot study is that in the pilot phase of those studies that fail to proceed is useful because it alerts other researchers of its potential pitfalls ([Read and George

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(1994)], and generates extra contemplation on those additional areas that need to be addressed prior to conducting a research on those studies ([Ratzan (1982)]). It may be considered that this pilot study outcome is a valuable source of information to the advancement of knowledge in the online recruitment patterns of MSMEs. A scan of research textbooks highlights ([Hinds & Gattuso,(1991)]) the definitions of the pilot study promising a tightly controlled small-scale study with a motif to justify the research question or the research objectives of the main study. This contradicts the true nature of a working pilot wherein a project with objectives less related to the research question but more related to that of the research process is tested. A search of the journal literature fortifies the notion of the pilot as a small-scale version of the main study. There are extensive publications relating to pilot studies but the main focus of this literature is reporting the results of pilot studies in terms of research outcomes ([Cowan et al (2002)]; [Wojner et al (2002)]; [Lupton and Fenwick (2001)]; [Anderson (2001)]). The pilot study report that indicates modifications and adjustments to be made by the researcher to the main study provides an important body of knowledge for the online recruitment research community. Research designs that require prediction and control over a flux of potential research participant, and that when they are the owners of enterprises, make very specific demands on the research environment. Nevertheless, this is an environment subjected to the continual flux and change that is characteristic of contemporary studies related to web technology and its usage in recruitments in MSMEs. The pilot study is therefore indubitably playing a vital role in research planning that is subject to an environment of constant technological innovation, incessant change in variation of models. Researchers need to be more receptive to the inclusion of a pilot study prepared to utilise their valuable findings to influence and modify relevant aspects of the main project. The following study is drawn forth to illustrate this claim.

### III. PRELUDE TO A PILOT STUDY

The topic of the research is to devise a decision model on recruitment through Web technologies for the micro, small and medium enterprises or the MSMEs. This study is an attempt to review the trends of recruitment using traditional web based technologies as well as advanced web technologies like the social networking sites in modern day MSMEs and ensure that the entire necessary manpower database network, knowledge workers, experts and virtual consultancies to be outsourced be available through the internet for the MSME entrepreneurs. Indeed, in the wake of severe ‘talent’ and skills shortages, organisations should endeavour to maintain its attractiveness and brand appeal through its selection policies (CIPD, 2010). In addition, this study also elaborates the effectiveness of recruitments through web technologies and explains some practical and managerial implications concerning its promotion and hindrances for MSMEs. As per available statistics (4th Census of MSME Sector in 2006-07), the MSMEs employ more than 60 million people in our country and play a vital role in overall reduction of the country’s poverty. This sector has shown an average growth of 18 percent over the last five years, around 98 percent of the production units are in the MSMEs sector. The MSMEs having emerged as an important vehicle for attaining inclusive growth of the country has invited various discussions pertaining to its critical success factors and strategic formulations even in the fields of human resource management. One such issue in the field of human resource management is recruitment procedures through utilization of web technologies in MSMEs. Lack of talented human resource is a major challenge for the MSME sector. The changing trend of Indian industry economics with particular respect to globalization, technology, outsourcing and the talent crunch imposes major challenge on the shortage of skilled manpower. However, with the fast growth of internet in our country, MSMEs that have harnessed the talent pool through the web have a cutting edge over the enterprises that are still reluctant to acknowledge the benefits of usage of the internet in recruitments. Moreover, passive and active job seekers also tend to prefer online applications to traditional application methods, because it saves time and money and makes it possible to browse through a wider range of job offers. It also allows job hunters to navigate through the corporate websites to build first impressions and opinions on the company (either because job offers are being searched directly on the corporate website, or through links, or by personal incentive). The researcher planned to conduct a pilot study to denote the parameters and manifest the operational standards for the main study. This pilot study was undertaken over a period of 4 months using the research methodology designed for the primary study. This time period included organizing meetings with entrepreneurs and MSME associations and initial preparation of printed materials. Survey and data collection was anticipated to take 6 weeks. A sample size of 10% of the main study sample was to be used. While the primary aim of the main study was to test the views of the entrepreneurs of MSMEs about online recruitments in their firms so that the researcher might derive at decision models on e-recruitment strategies, the intended objectives for the pilot project were to achieve:

- A. Testing the appropriateness (also verbiage) of instruments used during the study;
- B. Validation of survey tool content (questionnaire);

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- C. Reliability on the research tool protocol;
- D. Confirmation that instructions are comprehensible;
- E. Testing the appropriateness of timing of data collection;
- F. Development of data collection material;
- G. monitoring of the operational process;

## IV. PROCEDURE FOR THE PILOT STUDY

The pilot project was conducted over a period of 4 months. The research population comprised of owners of Micro, Small and Medium sector enterprises in Delhi NCR. On the basis of reports from the Fourth All India Census of MSME 2006-2007: Registered Sector there is a list of top 20 sectors of industry type which account for 77.25% of the total number of 113 activities reported under NIC-2004. The study is planned to be conducted within this sub group of top 20 sectors of industry type. The sample size for this pilot study was 15 out of which 14 were completely responded. The respondents were randomly selected from the industry clusters in Delhi NCR. This was to be a prospective comparative study between the usage of traditional methods of recruitments in MSMEs and the processes of online recruitments and also a study to review the trends of online recruitments in MSMEs.

### A. Implementation of the pilot study

A general information letter describing the objectives of the project was mailed to randomly selected micro, small and medium organizations as a part of the pre-survey process. A structured questionnaire was constructed to be filled in by the respondents (Annexure 1). The questionnaire contained 4 sections; the first contained generic information about the profile of the enterprise, the second section to deal with recruitment patterns and its sources. This section allowed us to develop an understanding of respondents' experiences in recruitment and analyse the possibilities and difficulties of online recruitment for MSMEs. Further, to draw a line between online recruitments in its traditional form of receiving emails from potential candidates and posting job offers in the company websites or at job boards vis a vis usage of social networking sites for reference checks or to draw in referrals, and the views of MSME owners pertaining to online recruitment were deduced through this section. The third section dealt with respondents' demographic details and the fourth section with information on where to direct the filled-in questionnaire and served field for post suggestions. A panel of experts was approached to validate the survey questionnaire. After reviewing the questionnaire for content validation, the researcher moved forth to conduct the reliability test on the survey instrument. With the help of the micro, small and medium industry-directories, potential respondents were randomly selected; data for reliability check were gathered either sending the questionnaire and the covering letter through mail or through personal visits. Furthermore, respondents were chosen randomly in their association meetings or in trade fairs and then followed up personally to procure their responses in the questionnaires regarding the topic of research. This multifaceted approach to procure responses from the survey tool thus helped to facilitate better understanding about the project under study.

### B. Instruments

A scale or a cluster of items (questions) that taps into a single domain of behavior, attitudes, or feelings pertaining to the respondents' views on online recruitment for MSMEs was developed based on a 29 listed-questions questionnaire. Three of these scales, namely ordinal and ratio scale apart from nominal used to procure firms demographic aspects were currently in use throughout the survey. Likert scales, as the familiar five-point bipolar response format was used to seek responses of MSME owners on to indicate how much they agree or disagree, approve or disapprove, believe to be true or false. The Guttman scaling, a technique of mixing questions up in the sequence so that respondents don't readily perceive these several interrelated questions were also used to extract responses sans biasness. Many nonsequential questions surround the important questions wherein the scoring system is based on how closely the respondents follow a pattern of ever-increasing hardened attitude toward some topic in the important questions. To invite free comments and suggestions to understand respondents' inhibitions and their views regarding the intensity of usage of online recruitment in their firms were intended to be made explicit through a number of open-ended questions. Taking into consideration the gravity of valuable time an owner of an MSME would devote to answer the questions, it was calculated that the first section would take even less than 1 min each to complete while survey done telephonically required approximately 5 minutes. Data filled in for the second section took the major amount of 4 to 5 minutes while the third and fourth section would hardly be wrapped in another couple of minutes. Data completion rate for the pilot study was 93.33%.

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## V. OUTCOME OF THE PILOT STUDY

The research methodology for the pilot project was absolutely structured on the framework established for the main study. Piloting on a smaller scale and with focused objectives the study provided relevant information necessary for the commencement of the main study. This paper manifests the importance of installing the objectives to be achieved by validating the study and finding its reliability. As demonstrated, these objectives relate to the research process rather than research outcome. On the basis of the findings (see Table 1) recommendations were made to modify the main study to strengthen the research process and the findings, thus, were directed towards providing information to improve the operational aspects of the main study.

### A. Reliability

Cronbach's alpha is the most common measure of internal consistency ("reliability"). It is most commonly used when the researcher has resorted to multiple Likert questions in a survey/questionnaire that form a scale, and wishes to determine if the scale is reliable. A researcher has devised a 29 question questionnaire to measure the views of owners of MSMEs regarding online recruitments in their firms. Questions 18 and 19 were on a 5 point Likert item while 20 from 1 to 8. In order to understand whether the questions in this questionnaire all reliably measure the same latent variable (feeling of safety) (so a Likert scale could be constructed), a Cronbach's alpha was run on a sample size of 14 subjects with the help of statistical tool by using SPSS-16 version

Respondents	Question 18		Question 19		Question 20		Total 1	Total 2
1	43	44	23	23	56	55	122	122
2	32	35	16	16	43	46	91	97
3	24	27	15	15	36	36	75	78
4	31	32	15	17	36	39	82	88
5	31	31	22	22	35	35	88	88
6	39	39	22	22	29	32	90	93
7	30	30	15	15	38	36	83	81
8	37	37	19	19	56	50	112	106
9	26	26	15	15	48	48	89	89
10	36	34	15	14	46	39	97	87
11	27	32	16	22	37	42	80	96
12	41	41	16	14	35	41	92	96
13	28	32	11	11	44	43	83	86
14	33	36	15	15	36	36	84	87

Scale: ALL VARIABLES

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.932	.936	2

Cronbach's alpha is **0.805**, which indicates a high level of internal consistency for the scale

Item Statistics	Mean	Std. Deviation	N
VAR00001	90.5714	12.66561	14
VAR00002	92.4286	11.07814	14

Table 1: Cronbach's alpha derived from Reliability Statistics

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Cronbach's alpha is a measure of internal consistency within an instrument, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. Technically speaking, Cronbach's alpha is not a statistical test - it is a coefficient of reliability (or consistency). The alpha coefficient for the given pilot study is 0.805, suggesting that the items have relatively high internal consistency. It might be noted that a reliability coefficient of 0.70 or higher is considered "acceptable" in most social science research situations and in management discipline.

## B. Content Validity

Content validity in scales deals with whether the assessment content and composition are appropriate, given what is being measured. It brings into limelight whether the scales or the test content reflects the knowledge and skills required to undergo the major study or demonstrate that the course content is sufficiently fulfilling to bring out the desired outcome through the study. Content validity requires the use of recognized subject matter experts to evaluate whether test items assess the defined content and can undergo rigorous statistical tests. Out of all validity measures the content validity is most commonly addressed in social sciences testing, wherein test items need to reflect the knowledge actually required for a given topic area. A review panel of 15 highly experienced MSME owners has approved of the assessment questions to approve the content validity of the questionnaire.

## VI. LIMITATIONS

In our country where Human Resource has still not procured all the acclaims and significance, especially in MSMEs where the entrepreneurs handle business single-handedly, they seem not to be indulging in thoughts provoking reviews and changes about sourcing of manpower. Moreover, in majority of the organizations, especially which are not labour-intensive, recruitment cycle is very unpredictable and infrequent. Thus, changes in recruitment process occur very slowly and gradually. Furthermore, there is a limited number of executive and top or middle management level people working in MSMEs because of which online recruitment practices have been disregarded. These limitations combined act as deterrent forces in bringing desired changes in recruitment patterns of MSMEs. In addition, research dealing with the studies of MSMEs involves the owners of these firms wherein in majority of cases all strategic decisions are taken by these entrepreneurs and thus they serve as the single person of contact to procure all responses for the questionnaire. These factors, thus, bring pressure to the research timeline.

## VII. CONCLUSION

This study integrates literature on the need of a pilot study and to reconceptualise the objectives of this survey. A review of the literature reveals that various reports on pilot studies are related to research, rather than process or their outcomes. To measure the reliability and validity of the questionnaire, a 29-item measure of questionnaire was developed based on multidimensional scale. The scale demonstrated content validity to establish the appropriateness of the scale to measure the effectiveness of the major study to follow. However, though the process of conducting a pilot study brought the researcher more close to focus towards the process outcomes to ensure successful operational conditions for the major study, there is a need for researcher to remain open to the unanticipated findings aftermath. Overall, this study suggests that the MSMEs are trying fast to adopt the practices of online recruitment though very rare firms consider the advanced second generation web technologies with the social networking sites as a helpful source for recruitments. Online recruitments have important implications for these micro, small and medium organizations wherein they plan to switch to sourcing talents through the help of internet as to obtain a versatile data pool and the initial screening process. Many new organizations have already recognized the internet as a useful tool for procurement of executive level workers, though this trend was more observed in the service sector MSMEs in comparison to the manufacturing units. In addition, recruitment through web technologies also has gain a different vista altogether with the advent of the second generation web technologies, commonly termed as web 2.0 technologies. The usage of social networking sites to create a virtual platform of like-minded MSME professionals has added a new horizon to the field of talent search and executives' procurement. This is a subject undergoing incessant changes and ongoing development, innovation and acquiring new definitions. Therefore, it was of utmost importance that a pilot study be conducted to gauge the reliability and validity of the survey tool and the scales being used for the major study in question. As day by day more entrepreneurs are embarking on to explore the field of online recruitments to avail its benefits, there is a greater need for researchers to conduct studies on this topic. Publication of pilot study results may benefit in highlighting the continuing and emerging factors that may influence the success of research projects in the contemporary field of

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study.

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