

## **Chapter 3: Methodology and Research Design**

### **PART I – Overview of Methodology and Research Design**

#### **Research Design**

The research has used a Cross sectional research design and focuses on the present status of implementation of e-Recruitment processes in various public service recruitment organisations in the country and associated issues and challenges faced by these organisations in implementing these processes.

#### **Scope of Study**

The scope of study is restricted to the following organisations:

- National Level Recruitment Bodies – Union Public Service Commission, Staff Selection Commission, Department of Post
- Regional Level Recruitment Bodies – Railway Recruitment Cells
- State Level Recruitment Bodies – State Public Service Commissions

#### **Research Approach**

A mixed method approach i.e. both Qualitative & Quantitative has been adopted. Quantitative approach was used for status of implementation of e-Recruitment across different recruitment bodies through semi-structured checklist. Quantitative approach was used for obtaining perception of respondents regarding importance of various issues and challenges faced in implementation of e-Recruitment processes with the help of a semi-structured questionnaire. Qualitative approach was used for getting in-depth details of these issues and how they are affecting various processes has been explored with the help of in depth interviews. Findings of both qualitative and quantitative results were triangulated at the end with the help of descriptive statistics and content analysis techniques.

#### **Data source**

For the purpose of this study both primary and secondary data sources were used. A semi-structured checklist was used for the assessment of the website content of respective recruitment agencies. Data collected on the basis of secondary data

published by the selected recruitment organisations in the form of annual reports, website report, notifications etc. was confirmed through telephonic interviews with the concerned officials.

In depth face to face and telephonic interviews were carried out with the key functionaries involved in the implementation of e-Recruitment process. Key functionaries for this purpose include the officials handling e Recruitment initiatives in the Recruiting Organisation as well as the officials of organisations providing technical support. These interviews were also used to identify main issues and challenges faced/ being faced in implementation of e-Recruitment processes. Perception regarding the requirement of implementation of e-Recruitment processes and importance of various issues and challenges faced in the same was obtained through an online questionnaire circulated to the key functionaries as mentioned above.

#### **Data analysis technique**

Information regarding the status of implementation of e-Recruitment has been collected through a checklist of website content. Information collected has been analysed with the help of a scale built of scores corresponding to level of implementation of various e-Recruitment processes. Scale building has been described in detail in the second part of this chapter. The scores have been represented graphically and analysed further to know region wise trends.

The perception of importance of various issues and challenges faced in implementation of e-Recruitment has been compiled on the basis of questionnaire responses and the quantitative results have been graphically presented. Nuances of various issues have been explored through in depth interviews and have been described in Chapter 5. For ascertaining the average perceived importance for any issue, following weights were attached to the options –

Very important – 4, Important – 3, Less important – 2, Not important – 1

Weighted averages for the options exercised by the respondents have been calculated for each issue and shown in graphical form in Chapter 5.

### **Sampling Framework**

The study includes Government Public Service Recruitment organisations in India i.e. Union Public Service Commission, Staff Selection Commission, State Public Service Commissions, Railway Recruitment Centres and Department of Post. Both the union government recruitment organisations and all the state public service organisations have been covered (except for the newly formed Telangana Public Service Commission, which is yet to set up its website) for the purpose of knowing the status. For Delhi, as no public service commission is there, Delhi Subordinate Service Selection Board (DSSSB) has been included. Only 4 Railway Recruitment Cells have been included on convenient sampling basis. Unlike the public service commissions which are autonomous bodies, Railway Recruitment organisations are controlled centrally by Railway Board on policy matters and follow uniformity in the recruitment procedures and wide variations amongst them are not expected. Hence, all the railway recruitment cells were not included as there was paucity of time available for the research.

### **Time Period of Study**

The status of implementation of e-Recruitment activities as described in this document is based on the available information up to January 2015 and any changes introduced after that have not been reflected.

### **Demographic Profile of Questionnaire Respondents**

The questionnaire was prepared online and was also sent as an attachment to e-mail. Hardcopy of the questionnaire was sent to those officers from where no response was received on telephone/ email. Questionnaire was sent to the officers working/ having worked in the recruitment organisations at middle/ higher management level as Chairman, Secretary, Addl. Secretary, Joint Secretary, Director, Controller of examinations, System analyst, Scientist etc. Out of total 55 questionnaires sent by e-mail/ fax, 23 officers responded back. Most of the officers who did not respond to the questionnaire showed reluctance in filling the questionnaire but were willing to give qualitative inputs through telephonic interviews. Following is the summary of officers who responded to the questionnaire –

**Table 1: Demographic profile of questionnaire respondents**

SN	Demographic Details	Profile		
1	Total number of Respondents (N)	23		
2	Gender	Male – 86.96%	Female – 13.04%	
3	Age	Min-25 years	Max-54 years	Mean-41.68 years
4	Work Experience	Min – 2 years	Max – 33 years	Mean – 17.6 years
5	Experience in recruitment related work	Min – 2 years	Max – 9 years	Mean – 4.37 years
6	Jurisdiction of recruitment activity	National– 43.47%	Regional– 34.78%	State – 21.73%

**Delimitations/Limitations**

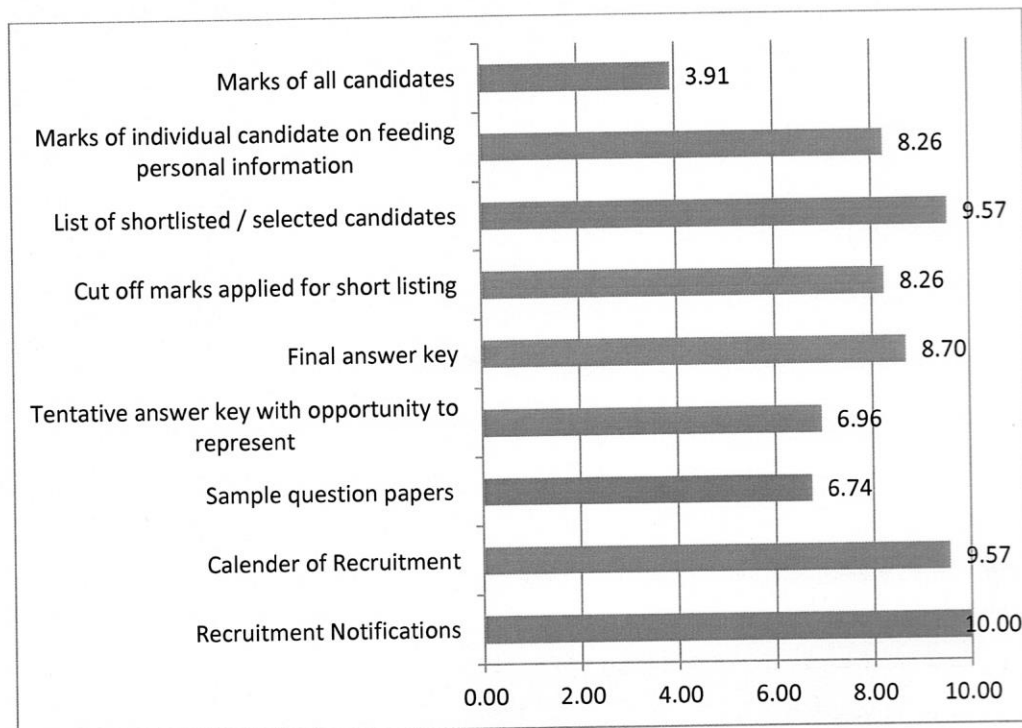
The study and analysis of the subject matter has been carried out from system perspective, i.e. from the e recruitment implementer’s point of view. View point of prospective candidates has not been included for the research. Recruitment organisations dealing with recruitment of public services other than those mentioned in the scope like banks, Public Sector Enterprises, Defence, sector specific services e.g. technical organisations, medical institutes are not included. However the results may be applicable to those other organisations which are following a similar recruitment procedure as being followed by the organisations which are included in the scope.

## PART II – Scale Building

To compare the status of implementation of various e-Recruitment processes, scores were awarded under the following sub heads –

### 1. Availability of Information on the website

The respondents were asked to give their opinion on requirement of providing certain key information on the website of recruitment organisations in terms of the following three options – Must be provided, May be provided and Not required. The weighted average of the responses (Must be provided – 10 points, May be provided – 5 points, Not required – 0 point) is shown in the figure 1 as given below –



**Figure 1: Perception of respondents on requirement of availability of information on website**

(On a scale of 0-10 where 0- Not required, 5-May be provided, 10 – Must be provided)

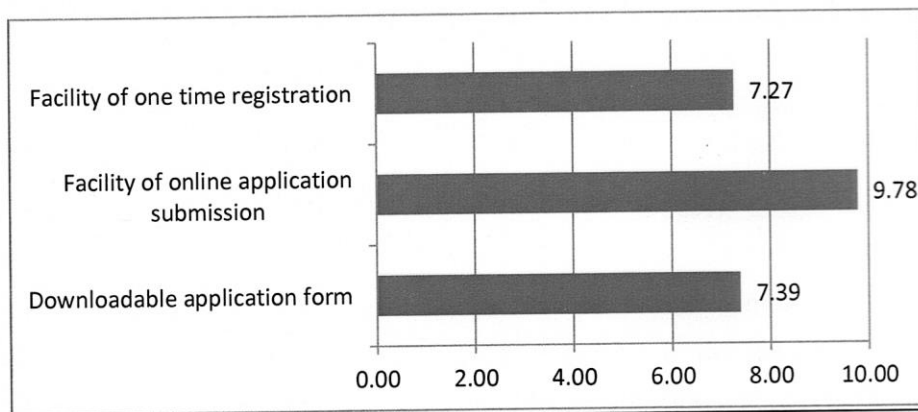
Scores of 2 points each were awarded to the information where the requirement perception averages were more than 7.5, 1 point each was awarded to the information availability where the requirement perception average was between 2.5 and 7.5. In addition to the listed entries in the questionnaire, respondents also suggested inclusion

of availability of FAQ/guidelines, providing scanned copy/image of answer sheet and the same have been included with 1 point each.

For ease of presentation of information, availability of information is further divided in two parts –

- i. **Availability of key information**
  - a. Notifications – 2 points
  - b. Calendar / Schedule of examinations – 2 points
  - c. FAQ/ Guidelines – 1 point
  - d. Sample Question papers – 1 point
- ii. **Availability of information related to result**
  - a. Select List/ List of shortlisted candidates – 2 points
  - b. Cut off marks – 2 points
  - c. Initial answer key – 1 point
  - d. Final answer key – 2 points
  - e. Individual candidates marks – 2 points
  - f. Marks for all candidates as list– 1 point
  - g. Answer sheet on website – 1 point

2. **Online Application/ Registration System** – In response to the question on opinion regarding requirement of availability of various processes related to online application system, weighted averages of the responses on a scale of 0 to 10 is shown in following figure.



**Figure 2: Perception of respondents on requirement of availability of online application system**

(On a scale of 0-10 where 0- Not required, 5-May be provided, 10 – Must be provided)

While ascertaining the status of implementation of online application system, it was seen that the implementation exists in different stages of implementation and according to the stages; scores were assigned as following -

- Only offline application allowed – 0 point was awarded as in these organisations, application forms are either printed and sold or are required to be taken from the employment news in which the application forms are published and the candidates are required to submit the same in hard copy along with documents, photographs etc. and are sometimes also required to attach self-addressed envelopes for future communication to be made by the recruitment organisation to them.
- Only offline applications along with application download facility on the website – 1 point awarded. In this case, candidate can download the application form from the website and then has to fill and submit the same in hard copy.
- Both online and offline application modes allowed – 2 points. Candidate has the option of applying in any mode.
- Mandatory online application mode allowed – 3 points. After providing both online and offline modes of application to the candidates for some time, most organisations graduate to 100% online mode of application. It is seen that many organisations switch directly from offline to 100% online mode of applications

After awarding points for online applications as above, additional 2 points each have been awarded for provision of one time Registration facility and provision of online payment facility. Both require implementation of requisite systems at recruiting organisations end and make the application process further simplified for the candidate. One time registration and provision of downloading the application forms have lesser score as compared to online application implementation based on the need felt by respondents as shown in figure 2.

### **3. Implementation of Information and Communication Technology in the candidate management and communication with the candidates –**

Scores have been awarded in the following manner –

Only offline mode of admit cards/ Call letters – 0 point

Both offline and online mode of admit cards/ call letters – 1 point

Only online mode of admit cards/ Call letters – 2 points

After awarding the score for online communication as above, additional 1 point each has been awarded for use of e-mail and mobile SMS (Short Message Service) by the recruiting organisations to communicate with candidates for intimation regarding declaration of result or that of availability of call letters on the website. In the qualitative inputs, many respondents mentioned the importance of online mechanism for redressal of candidate's grievances or for replying to candidates queries. Hence the same has also been included with 2 points wherever a proper user screen format has been provided on the website to launch a query or lodge a grievance. In case of organisations advising the candidates to send query/ grievances through e-mail giving an email id on the website, 1 point has been awarded. The scores only mean availability of the grievance redressal mechanism on the website of the organisation and has no relation with how effectively it is being used by the organisation/ candidates.

**4. Implementation of online examination** – A score of 4 points has been awarded to all the organisations which have started online examination. A high score has been awarded as online examination is a very significant step of e-Recruitment. No further discrimination on the basis of various stages of implementation has been considered as it is seen to be in a nascent stage of implementation in the public service recruitment bodies under study.

**Note** – In case of different procedures being followed for different exams by an organisation, procedure followed for most of the exams is considered for awarding points and only the predominantly used procedure is marked in the status table. Maximum points as per above scheme is 35.