Chapter 3

Research Design
CHAPTER 3
RESEARCH DESIGN

The present chapter throws light on the dynamics of the research methodology adopted for the conduct of this research.

3.1 Statement of Problem

Research on the HR-OP (Human Resource -Organizational Performance) link has a long history. Although Woodward (1965) has addressed it many years ago, but some point to the seminal papers of Osterman (1994), Pfeffer (1994) and especially Huselid (1995) as providing the solid foundations (Paauwe,2004).This HR-OP link has been described, recognized and represented by researchers across the globe by different metaphors' such as “Black Box” because of its examination of the link between the inputs(HR Policies and Practices) and Outputs (Profits and Financial Performance); Some call it as “Russian Doll” in which the outer doll of enhanced organizational performance is contingent on the 'fitting together' of the inner dolls of different HR practices; Some illustrate it as “Rubik Cube” analogy wherein a shift in the strategic orientation of an organization (Schuler and Jackson use the examples of innovation, quality-enhancement, cost reduction etc.) requires a concomitant shift in emphasis on specific (if sometimes wholly different) HR practices. The impact of human resource policies and practices on firm/organizational performance is an important topic in the fields of human resource management, industrial relations and industrial & organizational psychology (Boudreau, 1991; Jones and Wright, 1992; Kliener 1990).

In the last 3 decades, research has shown that the strategic use of HR is likely to be one of the most important determinants of organizational performance. Researchers have built evidence that link HR practices with organizational performance (Schuler and Macmillan 1984; Schuler and Jackson 1987,2005; Storey, 1992; Arthur, 1994; Dyers and Reeves, 1995; Huselid, 1995; Purcell, 1995; Delaney and Huselid, 1996; Huselid and Becker, 1996; Ichniowski, Shaw and Prennushi, 1997; Delery, 1998; Pfeffer, 1998;
Wright and Snell, 1998; Gratton, Hope and Hailey, Stiles and Truss, 1999; Truss, 2001; Guest, Michie, Conway and Sheehan, 2003; Paauwe, 2004; Paauwe and Boselie, 2005; Wright, Snell and Dyer, 2005). Outcomes of worldwide empirical research summarized in recent work of Boselie et al. (2005) and Katou and Budhwar (2006) suggest that there are commonalities and also contradictions in HRM and performance research (Wright and Boswell, 2002; Wall and Wood, 2005). The pioneering and definitely the most-cited work on this theme is credited to Huselid (1995) who explored the relationship between HR Practices and Corporate Performance.

After reviewing a large theoretical literature as well empirical studies on HR-OP Link, Meera Alagraja in 2013 in her exhaustive paper titled “HRD & HRM Perspectives on Organizational Performance: A Review of Literature” revealed a clear dearth of contribution from HRD in establishing the linkage with OP. She mentioned that HRD-OP relationship is an important topic relevant for research and practice.

<table>
<thead>
<tr>
<th>Key word Search</th>
<th>ABI/INFORM</th>
<th>EBSCO</th>
<th>Social Sciences Citation Index SSCI</th>
<th>Total Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRD - OP</td>
<td>5</td>
<td>9</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>HRM - OP</td>
<td>39</td>
<td>30</td>
<td>163</td>
<td>232</td>
</tr>
</tbody>
</table>

Source: Meera Alagraja (2013)

Alagraja (2013) reviewed three major research databases i.e. SSCI, EBSCO, ABI/INFORM which suggested that only 16 studies examined the HRD role in the OP area whereas the HRM-OP linkage has been extensively researched with a large number of 232 articles. She further interpreted that despite a big dearth of articles/papers on HRD literature, there are diverse range of theoretical themes addressed in the researches, that indicates both evolving interests as well as hints at basic degree of confusions about what truly constitutes HRD i.e. why it is called a “black-box” (due to lack of clarity regarding what exactly leads to what).

The issue of theory building with in HRD has received less systematic attention in research arenas compared to enormous piece of evidences existed in HRM discipline. Over the last two decades or so a handful of researchers/authors such as Swanson &

Due to insufficiency of empirical work in this area and less availability of causal models it proves difficult for researchers to precisely figure out the extent to which HRD improves performance. (Garavan, Gunnigle & Morley, 2000; Toracco, 1999; Bartlett, 2001). Though there are a number of studies who have recognised the relationship between HRD and Organisational Performance, the mechanisms through which HRD leads to OP still largely unexplored (Katou, 2009).

In the field of HRM-OP research there is vide family of OP variables. Most of the studies on HRM-OP linkage have used objective measures of organisational performance like productivity, turnover, corporate financial performance, profitability, sales growth, quality. A subjective or perceptual measure of OP has been less explored in comparison to objective measures. But in case of HRD-OP, due to gaps in literature and unclear foundations there is no clarity regarding do’s or don’ts while selecting measures of OP.

In light of the identified gaps and prior existing research pieces, the researchers ‘theme and topic selection are quite apt as it attempts to explore the HRD-OP dynamics that too in Indian context in progressively evolving Banking Industry exploring the impact of most relevant core mechanisms of HRD on Perceptual measures of OP using SEM (Structural Equational Modelling). Hence the topic is rightly framed as “Human Resource Development and Organizational Performance in Indian Banking Industry”.

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3.2 Research Objectives

The researcher has undertaken the present study with following objectives in mind. These are:

1. To study, understand and compare the employee perceptions towards HRD in general and HRD mechanisms in particular, further analyse the differences, if any, among selected public and private sector banks understudy.

2. To study, understand and compare the employee perceptions towards Organisational Performance and its Measures, further analyse the differences, if any, among selected public and private sector banks understudy.

3. To study the dynamics of relationship between HRD and Organisational Performance and subsequently analyse the impact of HRD mechanisms on Organisational Performance and its measures.


7. To conclude whether HRD in general and HRD Mechanisms in particular are having any influence as well as impact on perceptions of Organisational Performance phenomenon.

8. To offer certain practicable suggestions, result oriented guidelines to the selected organisations so that they are able to make constructive use of HRD Mechanisms which are more instrumental in generating an enhanced organisational performance.
3.3 Hypotheses

Corresponding to the objectives above, following set of null hypotheses is developed:

**H\textsubscript{0}1** There are no significant differences in between the selected public and private sector banks understudy on account of HRD and its mechanisms (*Organisational Culture, Training Development, Performance Appraisal, Role Analysis & Development, Employee Involvement & Empowerment, Quality of Work Life, Compensation & Reward System, Career Planning & Development)*

**H\textsubscript{0}2** There are no significant differences in between the selected public and private sector banks understudy on account of employees’ perceptions of Organisational Performance (*Perceived Organisational Performance, Perceived Market Performance, Job Satisfaction*).

**H\textsubscript{0}3** There is no significant relationship between HRD in general and Perceived Organisational Performance in the selected banks understudy and subsequently no significant impact of HRD on Perceived Organisational Performance among selected banks understudy.

**H\textsubscript{0}3a** There is no significant relationship between HRD mechanisms (*Organisational Culture, Training Development, Performance Appraisal, Role Analysis & Development, Employee Involvement & Empowerment, Quality of Work Life, Compensation & Reward System, Career Planning & Development*) and Perceived Organisational Performance in the selected banks understudy and subsequently no significant impact of HRD Mechanisms on Perceived Organisational Performance among selected banks understudy.

**H\textsubscript{0}4** There is no significant relationship between HRD in general and Perceived Market Performance in the selected banks understudy and subsequently no significant impact of HRD on Perceived Organisational Performance among selected banks understudy.

**H\textsubscript{0}4a** There is no significant relationship between HRD mechanisms (*Organisational Culture, Training Development, Performance Appraisal, Role Analysis & Development, Employee Involvement & Empowerment, Quality of Work Life, Compensation & Reward System, and Career Planning & Development*) and Perceived Market Performance in the selected banks understudy and subsequently no significant impact of HRD Mechanisms on Perceived Market Performance among selected banks understudy.
Developments) and Perceived Market Performance in the selected banks understudy and subsequently no significant impact of HRD Mechanisms on Perceived Organisational Performance among selected banks understudy.

H05 There is no significant relationship between HRD in general and Job Satisfaction in the selected banks understudy and subsequently no significant impact of HRD Practices on Job Satisfaction among selected banks understudy.

H05a There is no significant relationship between HRD mechanisms (Organisational Culture, Training Development, Performance Appraisal, Role Analysis & Development, Employee Involvement & Empowerment, Quality of Work Life, Compensation & Reward System, Career Planning & Development) and Job Satisfaction in the selected banks understudy and subsequently no significant impact of HRD Mechanisms on Job Satisfaction among selected banks understudy.

H06 HRD in general, and Its Mechanisms in particular, if pursued appropriately, have an influence as well as impact on Perceptions of Organisational Performance.

3.4 Research Methodology

Study, Data Collection

This is an empirical study. The researcher has made use of both field and documentary data to arrive at necessary conclusions. The field data has been collected with the help of two questionnaires discussed below. The documentary data with respect to various facts and figures of the sampled banking organisations has been collected using organization's Official Website, RBI website, Annual Reports. In addition to this, various other Newspapers, journals and unpublished documents have also been consulted to derive appropriate inferences.

Questionnaires/Instruments Used in Study

- For measuring HRD Mechanisms— A self-structured questionnaire was administered to the banking professionals keeping in view the objectives of the
Initially it consisted of 89 items organised in to 11 HRD variables. A pilot study was conducted with a sample of 50 respondents to judge the feasibility, workability, suitability, overall structure, sequencing/order of items, adequacy of items, wording and order of questionnaire. The sample for the pilot study included 20 bankers having experience above 10 years (10 each from public as well as private sector bank understudy), 20 bankers having experience below 10 years(10 each from public as well as private sector bank understudy), 8 expert academicians of HR discipline and 2 HR Consultants. Accordingly, questionnaire was administered to them. Respondents have been chosen in such a manner that it matches the criterion sample which was chosen for the final study. Researcher received valuable feedback from the respondents who suggested shortening the length of questionnaire, rewording/rephrasing some of the statements, discard some of the unnecessary overlapped and ambiguous questions. Accordingly, the researcher modified the questionnaire with final count of 75 statements organised in to 8 variables/HRD Mechanisms which were later confirmed through Confirmatory Factor Analysis (Refer Appendix 1)

- For measuring Job Satisfaction- A Job Satisfaction Scale developed by Brayfield and Rothe(published in Journal of Applied Psychology, 1951) has been adapted to suit the purpose of study. It consist of 5 items measures on a five point scale. (Refer Appendix 1)

- For measuring Perceived Organisational Performance and Perceived Market Performance, widely recognised questionnaire on HR-OP link developed by John T. Delaney and Mark A. Huselid (1996) has been adapted to suit the purpose of the study. (Refer Appendix 1)

**Reliability of Instruments**

‘Reliability’ can be defined to the extent to which a variable is consistent in what it is intended to measure. Several measures of reliability can ascertain the reliability of the measuring instrument. In the present research, the reliability of the HRD Survey, Job Satisfaction, Perceived Organisational Performance and Perceived Market Performance questionnaire scale was determined by using Cronbach's Coefficient alpha as shown in the Table 3.2. The reliability coefficient indicated that the HRD Survey used for
measuring perceptions towards HRD Mechanisms is quite reliable as the alpha value was 0.955. The Reliability Coefficient of Job Satisfaction Scale was 0.853 (As per appendix: 2). The reliability coefficient of Scale used for POP and PMP is 0.927.

In general, in psychology researches, a good measure should have a Cronbach’s Alpha of at least .60 and preferably closer to .90. An alpha value of 0.60 and above is considered to be the criterion for demonstrating internal consistency of new scales and established scales respectively. As the value exceeded the minimum requirement, it is thereby demonstrated that all the factors of HRD Survey, Job Satisfaction Scale and POP, PMP were internally consistent.

Table 3.2: Reliability of the Instruments Used

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Number of items in beginning</td>
<td>89</td>
<td>5</td>
</tr>
<tr>
<td>No of Items after Pilot Study</td>
<td>75</td>
<td>5</td>
</tr>
<tr>
<td>No of Items after CFA</td>
<td>50</td>
<td>4</td>
</tr>
<tr>
<td>Cronbach Alpha</td>
<td>.955</td>
<td>0.853</td>
</tr>
</tbody>
</table>

Note: * Values of 0.60 and closer to 0.90 testify strong reliability of the scale.

Test of Sampling Adequacy & Sphericity

Table 3.3: Assessment of KMO & Bartlett’s Test

<table>
<thead>
<tr>
<th>KMO and Bartlett’s Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
<td>.776</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bartlett’s Test of Sphericity</th>
<th>Approx. Chi-Square</th>
<th>df</th>
<th>Sig.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>44584.996</td>
<td>1953</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled and calculated through questionnaire.

- Here the KMO Test figure is .776 which is higher than the default criteria of .5 or .6; therefore it indicates that data is appropriate for factor analysis.
In addition, the Bartlett’s Test of Sphericity results are also statistically significant which suggests that it is worth continuing with the factor analysis as there are relationships to investigate.

**Sample & Sampling**

- In the present study the sampling universe comprises of banking professionals working in selected public and private sector bank branches located in different regions of Delhi.

- In this study Multistage Sampling has been used. In the first stage **Stratified Sampling** has been applied. Sampling universe has been divided into 4 regions/stratums. i.e. North, South, West and East. The total no of branches in all these four regions of the selected banks was 1167. On an average 2 managers were there in every branch. Total no of population = 1167 x 2 = 2334 bankers. From this figure according to the Regional Head Offices 20% were freshers + 20% not in a position to write their own ACRs etc. Therefore 40% of the population dropped. Final eligible bankers came out to be 1400. To arrive at a desired sample size the following formula was used:

\[ n = \frac{z^2 p(1 - p)}{h^2} \]

Where
\[ n \] = desired sample size
\[ z \] = value of ‘z’ at 95% confidence level is 2.5,
\[ h \] = level of measurement error (half width = 5% or .05)
\[ p \] = value of p is .5

Using this formula, we have got desired sample size \( n = 625 \). Since the total population of eligible bankers was 1400, therefore \( N = 1400 \). To work out the final representative sample following formula was used:

\[ n_c = \frac{N \cdot n}{N + n - 1} \]

Putting \( n = 625 \) and \( N = 1400 \), Final representative sample worked out is 432.
In the Second Stage **Purposive & Convenience Sampling** has been used to achieve the figure of at least 100 from each region i.e. at least 25 respondents of each bank from each region. Here purposely a total of 200 branches i.e. 60 branches from each region has been chosen of the four banks (i.e. 15 branches of each bank) keeping in view the researcher’s convenience, so that a total of at least 100 bankers (60 x 2 bankers per branch =120) data could be sought from each region of the respective 4 banks.

In third stage **Simple Random Sampling** has been used to identify the sample from each region. Here Individual employee of the selected banks has been considered as sampling unit in the present study. To achieve the desired sample size (i.e. 100 from each bank) 800 questionnaires were distributed i.e 4 questionnaire in each branch among the sampled population and finally got 421 filled ones, out of which 21 questionnaires were incomplete hence dropped, therefore final count was 400 with which the researcher pursued the study. Conclusively, the study was conducted with a response rate of 50 % which is considered fairly well in the light of the past research studies in HR/behavioural domains.

**Demographic Profile of Sample**

Table 3.4: Demographic Profile of Respondents

<table>
<thead>
<tr>
<th>Type of Organisation</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>200</td>
<td>50%</td>
</tr>
<tr>
<td>SBI</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>PNB</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>Private</td>
<td>200</td>
<td>50%</td>
</tr>
<tr>
<td>ICICI</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>HDFC</td>
<td>100</td>
<td>25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-30 years</td>
<td>103</td>
<td>25.75%</td>
</tr>
<tr>
<td>31-40 years</td>
<td>195</td>
<td>48.75%</td>
</tr>
<tr>
<td>41-50 years</td>
<td>54</td>
<td>13.5%</td>
</tr>
<tr>
<td>51-60 years</td>
<td>48</td>
<td>12%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>264</td>
<td>64%</td>
</tr>
<tr>
<td>Female</td>
<td>136</td>
<td>34%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Experience</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10 years</td>
<td>292</td>
<td>73%</td>
</tr>
<tr>
<td>11-20 years</td>
<td>62</td>
<td>15.5%</td>
</tr>
<tr>
<td>21-30 years</td>
<td>33</td>
<td>8.25%</td>
</tr>
<tr>
<td>31 above</td>
<td>13</td>
<td>3.25%</td>
</tr>
</tbody>
</table>
As shown in Table 3.4 gender mix of the study reveals that 64% of the total respondents were male and 34% were females. With respect to Age majority of respondents (48.75%) belong to 31-40 years bracket, followed by 21-30 years representing 25.75% of total sample. On the experience front, majority respondents (73%) were holding experience ranging from 1-10 years bracket followed by 15.5% respondents placed in 11-20 years period.

3.5 Statistical and Analytical Techniques used for Data Analysis

The data so collected was processed in Statistical Software's like MS Excel, IBM SPSS 23.0 to arrive at conclusions. The statistical techniques, which were employed to test the drafted hypothesis and for analyzing the results included; Confirmatory Factor Analysis (CFA) for confirming the factors for final analysis, Mean, Standard Deviation, Percentages, Pearson Product Moment Correlation, Analysis of Variance (ANOVA), Simple Linear Regression and Multiple Regression using Backward Elimination Method. The results so generated were presented with the help of appropriate statistical tables.

3.6 Description of Research Variable

The following variables are identified and pursued to meet the purpose of the study.

A. **Independent Variables:** The following HRD Mechanisms acts as the independent variables:

   i. *Organisational Culture, (OC)*
   
   ii. *Training & Development, (TD)*
   
   iii. *Performance Appraisal, (PA)*
   
   iv. *Role Analysis & Development, (RAD)*
   
   v. *Employee Involvement & Empowerment, (EIE)*
   
   vi. *Quality of Work Life (QWL)*
   
   vii. *Compensation & Reward System, (CRS)*
   
   viii. *Career Planning & Development (CPD)*
Note: HRD Index here has been calculated in a manner that the scores given by respondent bankers for each of 8 HRD Mechanisms were summed up and then averaged across all the HRD Mechanisms for each organisation to compute composite score.

B. Dependent Variables: Here organisational Performance act as a Dependant variable. The following subjective/perceptual measures of OP were included in the study:

i. Perceived Organizational Performance (POP)
ii. Perceived Market Performance (PMP)
iii. Job Satisfaction (JS)

3.7 Scope of Study

The present study is confined to Indian Banking Industry with special reference to Public and Private Sector Banks. The present study attempts to throw light on the concepts of HRD and Organisational Performance, subsequently it tries to explain the Relationship & Impact of HRD in general and HRD Mechanisms in particular on Selected Perceived Measures of Organisational Performance by performing a Comparative Analysis among selected Public & Private Sector banking organisations. For this purpose, in all, India’s four major banks 2 each from public as well as private sector has been selected. The branches located in surroundings of Delhi have been covered to elicit necessary responses from full time bankers employed in these banks. A total of 400 managers representing senior, middle and junior management cadre working in these branches have been surveyed. The selected organizations are:

- From Public Sector
  - State Bank of India
  - Punjab National Bank

- From Private Sector
  - ICICI Bank Ltd.
  - HDFC Bank Ltd.
3.8 Scheme of Study

The whole study has been divided into six chapters for convenience.

Chapter 1 is Introductory. This covers the theoretical aspects of the study, the introduction about HRD, Organizational Performance and Job Satisfaction. Along with it Overview of Banking Industry, Issues, Challenges and Future outlook has been discussed.

Chapter 2 is Review of Literature. This chapter contains the overview of the literature highlighting the relationship of HRD Practices and Organizational Performance. Both Global and Domestic contribution of researchers has been reviewed. Various sources of study, including books, magazines, Journals, Newspapers, online research databases, etc. have been consulted to frame this chapter.

Chapter 3 is Research Design. It throws light on the Statement of the Problem, Research Objectives and Hypotheses taken for the study. Besides it, Research Methodology, Scope, Significance and Limitations of the study have been discussed in detail in this chapter.

Chapter 4 is Brief Profile of the Organizations' Under Study covering their historical background, growth over the years, products and services being offered by them, future vision and mission, awards and achievements and so on.

Chapter 5 discusses the Analysis & Interpretation. This chapter is divided into five parts, Part-A discusses about Determination of relevant factors of HRD Index through Confirmatory Factor Analysis using AMOS 23.0; Part B discusses about Determination of relevant factors of Perceived Measures of Organisational Performance through Confirmatory Factor Analysis using AMOS 23.0; Part C discusses about Interpretations from HRD Practices Survey; Part D discusses about Interpretations from Perceived Measures of Organisational Performance; Part E discusses about Correlational Analysis of HRD Index & HRD Mechanisms on Measures of Organisational Performance; Part F discusses about Impact Analysis of HRD Index & HRD Practices on Measures of Organisational Performance through Regression Analysis.

Chapter 6 is Discussion of Findings and Suggestions. The concluding observations of the study and suggestions for further research were contained in this Chapter.

3.8 Conceptual Framework of Study

The conceptual framework of the study has been presented in Fig 3.1.
Figure 3.1: Conceptual Framework of Study