

CHAPTER 3

RESEARCH DESIGN

After identifying the Business problem and research gaps in earlier sections of the study, we now proceed to establish research objectives for carrying out further study in the subject. This section covers two important aspects namely Research Problem and research methodology in following sections

3.1 RESEARCH PROBLEM

This aspect shall be analyzed by understanding the following

Business Problem

Research Gaps

Research Objectives

Research Questions

3.2 RESEARCH METHODOLOGY

3.3 RESEARCH SAMPLING PLAN AND SIZE

Four aspect of Research Problem are analyzed as under-

Business Problem

In introduction chapter following business problem was identified-

Inefficient vocational education system results in unemployment, poor quality, Productivity and finally loss of valuable Human Capital which adversely impacts our national wealth.

Research Gaps

In literature review chapter following important research gaps were identified.

Lack of proper study in India to understand Vocational Education delivery, accreditation quality assurance and career growth system for power distribution sector in specific and other economic segments in general.

Lack of proper study to assess skill requirements for Power Distribution industry.

Lack of reliable Labor Market information System LMIS to plan skills

Requirements / development activity in the Country

Research Objectives

Based on above Research Problem and Research Gaps the following research objectives are framed to be achieved through this Research study

Objective 1 - To understand the challenges being faced by the existing vocational education system for power / engineering and other industries.

Objective 2 - To develop a framework for improving vocational education system- NVQF for Power / other Segments of Economy.

Objective 2a – To understand the skill requirements of Power Distribution Industry.

Objective 2b - To understand the vocational education systems of industrially advanced countries - selected 5 countries namely China, Japan, Korea. Germany and UK to serve as role model.

Research Questions

To address these research objectives following research questions are addressed, through this thesis

What are the challenges being faced by the existing vocational education system for power /engineering industries?

How can these challenges being faced by vocational education system in power, engineering industry be addressed?

What kinds of skills are required by power distribution industry?

How have advanced countries evolved their vocational education system?

3.2 RESEARCH METHODOLOGY

It is the process of collecting data and information for developing a pragmatic Vocational educational system. For the objectives, the following research methodology has been used -

Descriptive research using Primary and Secondary data by using

Structural interviews

Field survey

Observations

Document analysis

Case studies and data analysis

Objective 1

Descriptive research - Data collection done using:-

Primary Data - from relevant stakeholders using semi structured questionnaire

Secondary Data -from numerous published reports articles, newspaper, journals (Reports organized by Planning Commission from 1964 onwards, prominent ones are- Kothari Commission Report1965, Montek Singh task force2001, 11th Plan inclusive growth 2007-12, NCEUS report 2005 regarding unorganized sector, National Skill Development Policy 2009, Skill Development landscape in India FICCI report 2010, Skill projection for year 2020 report by NSDC and several other reports of Ministry of Labor and Employment and HRD, National Council of Education Research NCERT as mentioned in References are collated to understand existing system, its deficiencies and possible solutions)

Data Analysis

Document analysis, stake holders interviews and data analysis

Objective 2

Based on input of data collated for objectives, 1,2a, 2b, develop effective Framework of NVQF tailored to meet the requirements of power/ Engineering industries and a Generic model to meet our National need of business and industry

Objective 2a

Case study method

Unit - power Distribution Company

Number of Cases – 2

Basis of selection of cases –

Best performing private power Distribution Company

in northern region - (BSES Rajdhani Power Ltd)

comparative analysis of Haryana Vidyut Board with BSES

Data collection – field study and interviews

Data analysis – document analysis

Primary Data

Objective 2b

Primary Data

Collected through study tours of Japan, Korea, Germany, UK, China

Deliberations with respective consulates in India

Secondary Data

quoted in the Analysis of Published reports, papers, seminars

3.3 RESEARCH SAMPLING PLAN AND SIZE

Following Sample Plan was designed in consultation industrial bodies. Data was collected through Primary research by means of structured interviews percentage size of sampling was 20% of population size chosen, which is fairly representative

Table 3.7 - Research Sampling Plan & Size

No	Source	Persons Contacted	Number interviewed	% Size
1	Government .department			
	Ministry of HRD	8	2	25
	Ministry of Labor, Employment Planning Commission	10 8	2 2	20 25
2	Industrial Associations FICCI, CII, GIA	20	6	30
3	Industry – Large, Medium, Small	100	10	10
4	Director of Industries, Gurgaon	5	2	40
5	Principal IIT, Gurgaon	4	2	50
	Principal IIT, Okhla	4	2	50
6	Skill development Councils Auto Skill Development Council	10	1	10
7	NASCOM	5	1	20
8	Rural Vocational Schemes 6 Centers Gurgaon, Faridabad	20	6	30
9	National Skill Dev Corporation	10	2	20
10	Power Distribution company Haryana Vidyut Board –Gurgaon	5	2	40
	BSES Rajdhani, Delhi	11	4	40
11	Summary	220	44	20