CHAPTER FOUR

METHODOLOGY AND DATABASE

4.1. BACKGROUND OF THE STUDY

The present study involved field investigation in Kanpur, the largest city of Uttar Pradesh, located centrally in the state. According to 1991 census UP has the largest number of SC population. The state of Uttar Pradesh according to E.A. Blunt, who was the superintendent of 1911 census of the United Provinces, was the original home of the caste system\(^1\). The city was chosen due to historical and contemporary reasons. Historically, due to intensive industrialisation it had earned for itself the sobriquet of 'Manchester of the east' and due to this Harcourt Bulter Technological Institute, the second oldest engineering college of Uttar Pradesh was set up here, followed by Indian Institute of Technology. The city tops in the literacy percentage among to districts of Uttar Pradesh 77.63\(^\%\)\(^2\) (82.08% males and 72.50% for females), hence brings a fine semblance of grassroot and higher technical education. HBTI, which is a state engineering college and IIT which is the 'Mecca of Engineering' in India where selected for the study.

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4.2. PROCESS OF DATA COLLECTION

The final year students of 2001 ‘Bachelor of Technology’ course, who are at the threshold of labour market along with 2000 and 1999 batches who are recent entrants in the labour market, from both the institutes were targeted for direct investigation and graduate follow up survey respectively.

4.3. SAMPLE OF THE STUDY

300 questionnaires were circulated among the students of both these institutes 120 responded from HBTI and 110 from IIT. Quota sampling\(^3\) was undertaken to draw a representative sample which contained individuals belonging to both categories.

For graduate follow up also quota sampling was adopted for fair representation of categories chosen for the study. Since most technical graduates were working away from their home towns, and were available on the internet, questionnaires were sent and received on the e-mail, which was faster and economical. 40 from each institute responded making a total of 80 respondents, from both categories.

4.4 TOOLS FOR THE STUDY

Two separate questionnaires were designed to cull out information from the final year students and the fresh entrants in the labour market from both the institutes. The questionnaires had both quantitative and qualitative components. The first questionnaire had thirty seven questions which were both quantitative and qualitative while the second questionnaire had forty to collect exhaustive information from the respondents.

4.5 TECHNIQUES FOR THE STUDY

Subsequent to data collection, the data were coded and fed in the computer using SPSS software (statistical package for social sciences). The data were filtered, checked and cleaned. Frequency tables were made, after marking class intervals, cross tabulations were made. Descriptive analysis along with correlation and regression are used in the study for analysis.

The purpose of analysis is to reduce data to intelligible and interpretable form so that the relations of research problems can be studied and tested. It comprised of categorization, ordering, summarizing of the data.

Cross breaks were used to describe the data both in frequency and percentage form, and correlation computed. Stepwise regression, a programme of multiple regression was used to focus on the problem of the study.
4.6 HBTI: PROFILE OF THE INSTITUTE

HBTI-Harcourt Butter Technological Institute, one of the premier institutions of the country is located in Kanpur. In 1907 during the industrial conference at Nainital it was proposed to establish technical institutions in UP, one at Kanpur and another at Roorkee. Later, on the recommendations of the Holland Commission during 1916-18 a three year PG Diploma Course in chemical Research and oils was started after B.Sc. The academic programmes in the institute were first introduced in 1923 mainly focusing on the subjects linked to industry.

The academic spectrum of the institute received impetus with reorganization of existing courses and introduction of several new courses in the sixties. Earlier affiliated to Agra University, it acquired affiliation from Kanpur University in 1967-68 and has now become academically autonomous with effect from academic session 1994-95 within this university. The Institute in its 75 years of existence has contributed significantly to the industrial development of the state in particular and nation in general. The institute has always endeavoured to urge ahead among all activities viz. teaching, research and technical consultancy. The institute has all major engineering disciplines like chemical, leather, civil, computer science, electrical, electronics, mechanical etc.
4.7 IIT KANPUR: PROFILE OF THE INSTITUTE

The Indian Institute of Technology, Kanpur is an autonomous organization incorporated under act of parliament in the year 1961, and is fully financed by the government of India. The authorities constituted under the act and statutes, which govern and guide the functioning of the Institute, in the areas of administrative and academic programmes, are the councils of IIT, the board of governors and the senate.

IIT Kanpur, is a volatile, combustible mixture of ideals and human beings and as a consequence always in a state of transition from being an institute of excellence to an institute that fosters excellence. On the research front the focus has been towards nurturing a delicate balance between market driven development of technology in collaboration with industry on one hand and blue horizon research which has been the IIT's traditional forte since inception, on the other. The institute has the following major disciplines i.e., electrical, mechanical, civil, chemical, computer science, metallurgy and aeronautical engineering. It always ranks among the top colleges of engineering in India and is acclaimed internationally too.