CHAPTER IV

OBJECTIVES AND RESEARCH METHODOLOGY
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Objectives:

1) To identify the reasons for establishing an Information System (IS) in the Income Tax Department & to study the suitability of computers, identifying data sources, generating reports & designing information flow for an effective Information System.

2) To check the techno-economic viability of computer usage & adoption in the Income Tax Department.

3) To identify the application areas & extent of computer usage in Income Tax Department.

4) To measure the pattern & extent of human resistance on the introduction of Computer Based Information System in Income Tax department on the part of Computer Operators, Departmental Information Users, Legal Prosecutors as well as Income Tax Payers.

5) To know the Image, Perceptions & Attitudes about computers in the Income Tax Department.

6) To know the perception regarding the effects of computers on Employment, Working Emoluments, environment, Health & Change in Power Centres alongwith the change in Management Functions(if any).

7) To report on the objective quantification of intangible benefits of MIS in Income Tax Department.

The objective of this study, broadly, was to suggest methods to improve the entire functioning of the Income-tax Department by the introduction of Computers into appropri-
ate areas of its work.

The broad arguments outlined in the chapter I justify the computerisation of the Income-tax Department. Now the problem is how to go about with the job of computerisation and what areas are to be computerised. This is the main objective of the study. The aim is to make a critical analysis of the functioning of the vital areas of work of the Department and identify the areas where computers can be profitably introduced.

As told earlier, in view of the rapidly changing technology & aspirations, there is no alternative for the Department but to overhaul its system of working. This is probably the most important task for the Department. In fact advanced countries like the U.S.A and the U.K. periodically review and upgrade their systems. Even though the U.S.A is in an advanced stage of computerisation, still it is now in the midst of executing a massive plan to substantially improve its computerised system. Since overhauling of the system in our country is long overdue, it is all the more appropriate to choose a subject where the research would lead to recommendation of a detailed computerised procedure of working in the Income-tax Department.

On the basis of the above discussion, the following main areas have been addressed to in this dissertation:-

(1) The history of computerisation in the Income-tax Department in order to identify the shortcomings.

(2) The computerisation in the Income-tax Departments in the advanced countries like U.S.A, Canada, England and Spain in order to learn from their experiences.

(3) Critical analysis of the functioning of the Income-tax Department in India and identify the bottlenecks, deficiencies and dysfunctionalities in the system.
Different parts of the organisational functioning of the Income-tax Department and identify the areas where computer can be introduced to improve the functioning.

Some of the possible areas for consideration where computer can be introduced are outlined in the following paras.

(i) Perfection of the procedure of allotment of a Permanent Account Number to each taxpayer to give a unique identification number to each taxpayer.

(ii) Processing of income-tax returns.

(iii) Processing of challans

(iv) Improving the quality of tax assessment by developing an information system.

(v) Proper utilisation of survey reports to detect new taxpayers.

(vi) To examine the application of computer in processing of Tax Deducted at Source returns.

(vii) To examine the method of selection of cases for scrutiny.

(viii) To suggest a method for providing statistics to the Government for formulation of Budget and legislation.

(ix) To examine the problems of staff resistance to computerisation and the development of a strategy to overcome it by removing the communication gap between the management and staff.

It is clarified that the dissertation did not go into the detailed questions of computer capacity and selection of hardware. The object has been to explore different areas of
devise detailed computerised procedures from the tax administrators point of view. The usefulness of this approach is that, once the Department spells out what is to be done, it would be easy for the consultants to develop the software and suggest hardwares.

**METHODOLOGY**

Because of the nature of the topic, the methodology of the research has been partially analytical based on historical as well as field data collected primarily for this study. Apart from this there has been discussions with the concerned officers of the Income-tax Department both at the field and Board level and with officers who visited the U.S.A, Canada, U.K. and Spain to study their systems.

**SAMPLE SIZE AND SURVEY AREA:**

The sampled officers of Income Tax for this study were limited to the offices under the control of Chief Commissioner of Income-tax (Administration) North West Zone Chandigarh, which controls the Income-tax offices located in the state of Punjab, Haryana and H.P. and Chief Commissioner of Income-tax (Administration) Delhi Zone Delhi. The respective CCITs (Chief Commissioner of Income-tax) print an office address directory under their control. The lists of all the officers in the two directories were combined and were fed into the computer. The sample was selected by Pseudo Number Generation Technique with the help of computer and a list of 150 officers was generated.

The structured questionnaire (placed at Appendix "I") was mailed to the officers selected as respondents by Pseudo Random technique along with brief purpose of the survey outlining the objectives and clear instructions for easily completing the questionnaire.

The zonal/head offices of the various Income-Tax offices were approached individually and relevant data desired was collected after contacting first by telephone and prior
appointment was fixed. 104 respondents from the sampled officers obliged by responding to the request. Regarding the data of employment in Income-tax department the offices of Central Board of Direct Taxes (CBDT) and Budget Section of Ministry of Finance, Government of India, Delhi were approached and necessary data was recorded.

Regarding compilation of History of Computerisation in Income-tax Department, Mr Shankar Gupta, Ex-Deputy Director (Systems) in the office of Directorate of Income-tax (Systems) was contacted and the brief history of computerisation was compiled in various sittings with him. A draft report was prepared and it was got counter-checked by him. Mr Shankar Gupta was the First Officer employed in Income-tax Department in early seventies and was mainly responsible for all activities in the field of introduction of use of computers in Income-tax Department. Secondly, the notes prepared on History of Computerisation in Income-Tax Department was discussed with Mr. P.C. Chhotarai, Director in the Office of Central Board for Direct Taxes (CBDT), the officer concerned for Income-tax Computerisation in the CBDT, and any gaps left were filled up. The researcher has also an opportunity to work in the computer field of the department as an officer and that experience was also one of helping hand in finalisation of the research report.

The technique of convenience and judgement sampling was used for selecting the persons involved in working with Income-Tax Department for example; Chartered Accounts and Income-Tax Advocates, who happen to look after the assessees side. Their views on the benefits of computerisation already introduced and possible areas for future introduction were also obtained.

INSTRUMENTS:

1. IMAGE & PERCEPTION OF THE COMPUTER:
(1975) were used. In open ended questionnaire, the respondents were asked to give some adjectives to describe their images about the computers. These could be words, phrases, or short sentences. This questionnaire was given first, to get their images before they read other questionnaire parts. For perception about computers adjectives were collected from the literature, interviews, discussions with the experts and computer users, and edited to get a final list of 20 bipolar adjectives. Respondents were asked to check each pair of adjectives on a seven point scale. Scores for each adjective range from favourable (7) to unfavourable (1). Scores were altered in the case of negative adjectives. The total scores for each respondent was calculated. One can get a maximum score of 140 and a minimum score of 20. The higher the score the more is the favourable perception about computers and vice versa.

2. ATTITUDE TOWARDS COMPUTERS:

This instrument too was designed by Pareek, Ghose and Sarupia (1975). Respondents were given the list of statements to check with which they agreed. The total attitude score for a respondent was given by the total of the scale values of all the statements he checked (agreed with). On the scale the minimum score one can get is 1 and the maximum score 115. The higher the score the more favourable the attitude towards computers and vice versa.

3. REASONS OF USE AND NON-USE OF COMPUTERS

In this research, questions were asked about the benefits gained by the Income-tax Department with the use of computers, and to know the reasons of non-use of computers in the Department. As there is too much work in Income-tax offices which is of routine and repetitive nature, so use of computers can decrease a lot of repetitive calculations of tax assessment. The recovery of tax arrears can also be improved by the introduction of computers and third party information
usage & non-usage were checked upon all such areas in Income-Tax Department where computers are either in use or not in use.

4. IMPACT OF COMPUTERS:

This section of the questionnaire intending to measure the users' opinion and reactions towards the social effects of computers in their department was developed specifically for this study. Lot of literature was consulted for checking the consequences that has emerged as a result of computers. Experiences of foreigners as reported and available in the journals and other research books were also attended to. Personal interviews with the union leaders, officers also helped. Users of computer system in the department were asked to pinpoint their viewpoint on any one of the scale ranging from strongly agree to strongly disagree.

DATA COLLECTION METHOD AND ANALYSIS:

The Questionnaire used for this study was got filled by researcher personally from the sampled respondents. Responses obtained from the returned questionnaire were coded and entered on the computer terminal for use in computer tabulations. SSSP (Scientific & Statistical Subroutine Package) was used to show relationships between various variables. All Tests of Significance, Chi-square, Correlations and Analysis of Variance were calculated using specific subroutines to check the difference in means of two or more samples.

CONDUCTING THE SURVEY:

The actual data was collected between December 1993 and January 1995. The questionnaires mailed to the respondents and if possible distributed personally to those who were serving in the zones selected for the study. A total of 104 respondents responded to the questionnaire.
LIMITATIONS:

During the survey period, so many difficulties encountered when attempting to talk to and get questionnaire filled from the respondents. Many respondents, especially of officers level were not cooperative and some in fact refused to respond to the researcher’s request. A lot of time was wasted in getting past the secretaries and getting to the respondents. Sometimes, the officers referred the calls to their associates/assistants saying that they were not very knowledgeable about the issues.

So many officers had some resistance to being included in the sample. They often opened up more as they realised that the questions were of a general and non-threatening nature. There were several respondents who refused to participate in this research owing to so many reasons as 'time constraint', 'unofficial nature of the study' and for the want of 'permission from the Government of India/ higher authorities.'

Due to the nature of the survey, it seemed that some, if not many respondents, for various reasons, tended to (a) try to brag about the system; (b) exaggerate the positive performance of the system (c) cover up the system's inadequacies; (d) be non-critical; (e) be skeptical and suspicious of the inquiry; & (f) be kind to the system. As with all report instruments, the value of the results is dependent upon the cooperation of the persons responding to the survey. It is very easy for the respondents to simulate an extreme attitude if they wish to do so, simply by answering all the questions one way or the other.

Simple terms used in the survey were chosen in such a way that little interpretation by the respondents was required. However, as is true with any survey, it is possible that some terms might connote different concepts to certain persons. While some, when in doubt, asked for clarifications, other
of information, to a couple of officers who cared to explain, meant the accuracy of data transferred from source document to machine readable format and eventually to reports produced. On the other hand, to a few officers, the information was accurate only if, it had the precisions according to their own definition.

Further, this study considered attitude as a very simple and calculatable variable. Infact, the attitude variables are not completely comprehensive of the system user’s attitude towards usage of the computer. The sample used in the study consisted of Income-tax officers who, for the most part, had in their respective positions skeptical to discussing or expressing there views freely. Such a sample may well be idiosyncratic in its perceptions, attitudes and system usage. Finally, some recent works have differentiated between values and attitudes and shown the importance of values in explaining behaviour (Rokeach 1973). Since the values are seen as more enduring feelings than attitudes, the appropriateness of values in explaining behaviour is beginning to be seen. Such value concepts could be useful in future for advanced research.