Chapter 4
DATA COLLECTION

Data collection means gathering information to address those critical evaluation questions that the author has identified earlier in the evaluation process. It is an important aspect of any type of research study.

4.1 Data Collection Methods

There are two methods of collecting data. They are,

1. Quantitative Data Collection
2. Qualitative Data Collection

The Quantitative data collection methods rely on random sampling and structured data collection instruments, that fit diverse experiences, into predetermined response categories. They produce results that are easy to summarize, compare, and generalize. [25]

The Qualitative data collection methods play an important role in impact evaluation by providing information useful to understand the processes behind observed results and assess changes in people's perceptions of their well-being. Regardless of the kinds of data involved, data collection in a qualitative study takes a great deal of time. The researcher needs to record any potentially useful data thoroughly, accurately, and systematically, using field notes, sketches, audiotapes, photographs and other suitable means. The data collection methods must observe the ethical principles of research.

The Qualitative data collection methods were not possible purely due to time constraints. And also this research is based on the existing IT enabling system of the EPF. Therefore the author selected both the Quantitative and Qualitative date collection methods for this research study.

There are many methods of gathering information, and a wide variety of information sources. Followings are the few methods of collecting information for research projects.

- Questionnaires
- Interviews
- Direct observations
- Documents and other materials
- Focus group interviews
- Case-studies
- Diaries
- Critical incidents
- Portfolios

Out of above eight different data collection procedures, the author was able to adopt only two methods. They are Questionnaires and Interviews. Other six methods are not possible because they need more time and more effort and different types of technology to collect data.

4.1.1 The Questionnaires

This was the main data collection method used in this research. Questionnaires are a popular means of collecting data. But the designing is difficult because it often requires many re-writes before finalization. The most important issue related to data collection is choosing the most appropriate information or evidence to answer the author's questions. To plan data collection the author had to think about the questions to be answered and information sources available. Also it had to think how these data could be organized, interpreted and then reported to various audiences before finalizing the questionnaires.

There are advantages of questionnaires. Some of them are,

- Can be used as a method in its own right or as a basis for interviewing or a telephone survey
- Can be posted, e-mailed or faxed
- Can cover the large number of people and organization
- Wide geographical coverage
- Relatively cheap
- No prior arrangements are needed
- Avoid embarrassment on the part of the respondent
- No interviewer bias
- Possible anonymity of respondent

The author understood the following disadvantages also available in the method of questionnaires. They are, designing problem, question have to be relatively simple, time delay whilst waiting for responses to be returned, assume no literacy problems, no control over who completes it, and problems with incomplete questionnaires. The targeted group of people had to be selected carefully to avoid such disadvantages.

4.1.2 The Interviews

Interviewing is a great way to learn detailed information from a single individual or small number of individuals. This is a main data collection method used in the research. It is very useful when someone wants to gain expert opinions on the subject or talk to someone knowledgeable about a topic.

Type of Interviews

There are several types of interviews. The author has to select one kind of interviewing method considering the type of technology which is available and the availability of the individual the author is interviewing, and how comfortable author feels talking to people. These are the methods of interviews which are very popular among the researchers.

1. Face to face Interview
2. Phone Interview
3. Email Interviews
4. Chat/Messaging Interviews

When the author sits down and talks with someone it is a face-to-face interview. It is very important that the author can adapt questions to the answers of the person author is interviewing and also it is needed to bring recording device for the interview.

If author needs to interview someone who is geographically far away, or too busy to personally meet, or does not have internet connectivity, the phone interview method is very convenient. The author used this method to get some clarification of the information received from the questionnaire.

This method is highly convenient for most individuals who are used to emailing frequently. It is also less personal than face to face or phone interviews. But it may not get more information from an individual in an email interview because author is not able to follow up questions or play off the interview response. However, email interviews are useful because they are already in a digital format. In this research project the author decided to avoid this method since most of the stakeholders find this method inconvenient.

Using instant messaging services like MSN messenger, Google talk, Skype, SMS messages using mobile phones, the author is able to collect necessary information relating to the research project. These interview methods allow to get information from the people who are living/working far away and who are having internet connectivity and it is also convenient for Chat/Messaging methods. In this research project the author decided to avoid this method, since most of the stake holders are not conversant with these chat/message methods.

When setting up an interview the author made sure to be courteous and professional. Before starting the interview the author explained the reason of the interview, what author wanted to talk to them about, and what the research project author is going to do. Getting permission from the officers who were engaged in interviews, author was able to use video recorders to record the conversations held.

When conducting interviews the author adhered to the following rules.

- Carefully selected the questions asked.
- Started interview with some small talks
- Brought extra recording device (another video recorder)
- Author paid more attention while the interviews were going on
- Came to the interview prepared
- Did not pester or push the officer. The author was interviewing and if he/she did not talk about an issue, author respected and did not push them
- At the interview time author was rigid with his questions
- Did not allow the officer to get off the topic and asked follow up questions to redirect the conversation to the subject.

4.1.3 Direct Observations

Author was able to make direct observations when the EPF offices, in various stations were visited. Certain participants were quite helpful in providing an in-depth understanding to the author by arranging visits to their offices. This allowed the author to gather certain information of how the systems behave in the real office environment.

4.1.4 Documents and other materials

The author was able to collect some important data from various offices as a secondary data collection mechanism. These data were gathered from various forms, internal circulars, memos and departmental instructions of various offices visited by the author.

4.2 Sample Selection

Following stake holders are involved in this research. They are,

- Management Assistants of the EPF offices
- Assistant Commissioners in-charge of the claim Units
- Assistant Commissioners in-charge, in district office
- Deputy Commissioners in-charge, in zones
- Members of the fund

Each stake holder sample was taken based on the Purposive Sampling Method.

Purposive sampling which is a type of non-probability sampling method, targets a particular group of people. This method allows researchers to "hand pick" the sample by keeping a specific purpose in the researcher's mind. When the desired population for the study is rare or very difficult to locate and recruit for a study, purposive sampling may be the only option [26].

Below Table 4.1 shows the percentages of stake holder sample.

Sample	Sampling Technique	Percentage	No. Selected for Pilot Survey
1. Management Assistants (MA)	*Purposive Sampling* Management Assistants are one of the main players of the system. They are the people who are engaging throughout the whole process and are directly related to the members of the fund.	40%	4
2. Assistant	*Purposive Sampling*	25%	1

Commissioners (AC)	An Assistant Commissioner is typically the high-ranking executive officer in charge of total management of a particular Claim unit/ District office.		
3. Deputy Commissioners (Zone / Head office) (DC)	*Purposive Sampling* The Deputy Commissioner is the highest-ranking executive fficer responsible for all Claim units or all district offices.	15%	1
4. Members of the Fund (MEB)	*Purposive Sampling* Members are the key stake holders of the fund. EPF fund is built up using their contributions and finally the effectiveness of the system is beneficial for them.	20%	2

Table 4.1 Stakeholders sampling

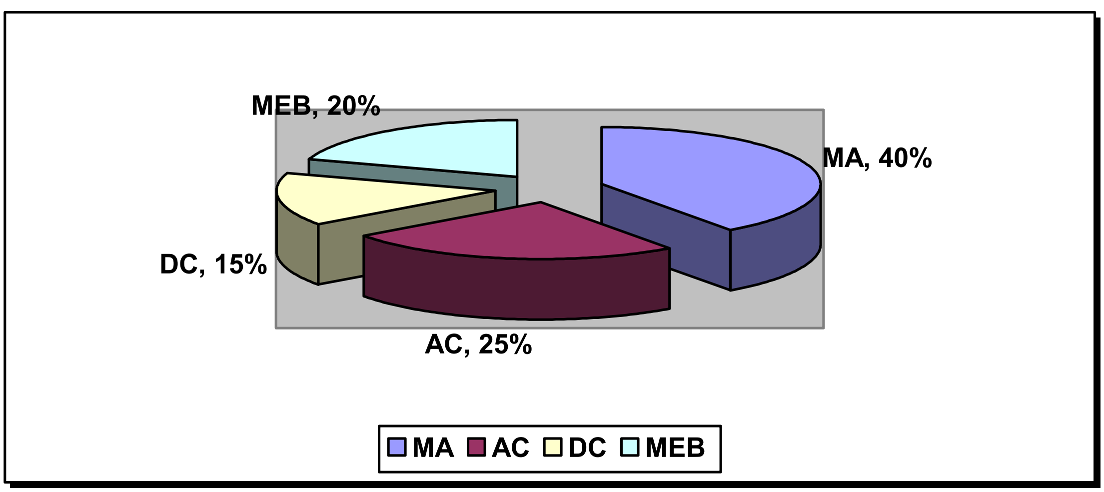

Figure 4.1 Stakeholder category wise analysis

4.2.1 Refund Units Selection

Before the year 2000 all EPF refund claims were handled by the staff of the Head Office. As a result of introducing the IT enabling system to the EPF, officers who were handling EPF refund claims, were able to work with EPF data bases, remotely. In addition to that the Central bank had agreed to provide a limited facility to access their data base through internet. Considering these facilities then the management of EPF had decided to decentralize selected functions of the EPF refund section. It was gradually increased. Now all district offices of the department are handling EPF refund claims.

All refund claims of the Colombo district are handled by the officers of the Head Office in Colombo at Narahenpita. EPF refund claims of the other districts are handled by the officers of the District Labour Offices. The table below presents the refund units selection way for the research.

Location	Unit Name	Reasons for selection
Colombo - Narahenpita	Unit P, Unit K, Unit L	Approximately 65% of the working population in service sector is living in the Western Province.[27]
Kurunegale District Labour Office	EPF Claim Unit	Kurunegala is the second largest district office handling the highest number of refund claims other than the Colombo head office.
Hatton District Labour Office	EPF Claim Unit	Large numbers of Tamil speaking estate workers are living in this area. Hatton is a big city of NuwaraEliya District which are 67% of Plantation sector workers are living in.[27] Most of the complaints against the EPF refunds are received from these plantation

		areas.
Anuradapura District Labour Office	EPF Claim Unit	Anuradapura district labour office is situated in the North Central Province. 69% Agriculture workers are living in this province. [27] They are getting very low level wages and living in very remote areas with low level living facilities.

Table 4.2 Units Selection for the Research

4.3 Questionnaire Design Methodology

Based on the conceptual framework which was explained in Chapter 3, the semi structured Questionnaires were designed. With the intention of getting necessary information for the research project two sets of Questionnaires were prepared. Those two sets of questionnaires were named ***Q Set 1*** and ***Q Set 2***. (Please see Appendix A and Appendix B.) While Q Set 1 was used for collecting information from Management Assistants of each administrative unit, Q Set 2 was used for collecting information from Assistant Commissioners in-charge of each unit and Deputy Commissioners in the zones.

Questions of each set of questionnaire were mapped with the conceptual factors, and vice versa. Tables 4.3, 4.4 and 4.5 show these mappings and illustrate the fact that the questionnaires are well balanced across the range of factors.

		Factor	Questionnaires	
			Set 1	Set 2
Technology Factor	T1	Choice of Technology (Simple use, web based, n-tier)	**7**	**7,9**
	T2	Capabilities of Technology (be scalable, open standards)		**10**
	T3	Management of technology (should be easy, simple, self managed)	**8,9**	
	T4	Use of technology in local language (improve effectiveness, popularity of the programs)	**8,9**	
	T5	Security and privacy issues	**8**	**8**
	T6	User friendliness	**7**	
Process Factor	P3	Front-end approach (without large scale changes at the back-end)	**8,9**	
	P4	Avoid bureaucratic red-tape projects		**14**
Political Factor	O1	Strong political will (To avoid negative pressure, Improve sustainability)		**15**
	O2	Political support (Pro-active, at all stages of the Project)		**15**
	O4	Political awareness on e-EPF system		**15**
Organization Factors	R1	Supportive HR policy	**10,11**	
	R2	Needs of training for support staff	**6**	**5,6,7**
	R3	Motivating senior officials		**4,5,6**
	R4	Building political support inside the organization		**13**
	R5	Shortage of IT-trained / professional staff	**11**	**15**
Member Factor	P1	Involvement of civil society (members of the fund)	**13**	
	P2	Awareness of stakeholders	**13**	

Stakeholders Factors	M1	Resistance to change (from the members, trade unions, employers)		**13**
	M2	Support from other stakeholders (Central Bank, Service Providers, Vendors)	**10**	
Legal Factor	L1	Legal frame of e-EPF (Validity of digital documents)		**14**
	L2	Amendment of EPF laws (Change Sections, Regulations)		**14**
	L3	Stability and flexibility in laws		**14**
Resource Factor	A1	Availability of equipments (PCs, Network)	**12**	
	A4	Infrastructure in backward areas (legal heirs, the disabled members)		

Table: 4.3 Questionnaire mapping with the conceptual factors

Question	Factor	Factor Category
Q. 1	General Questions (Identify the office, Age and Seniority)	General
Q. 2		
Q. 3		
Q. 4	R2 - Needs of training	Process Related
Q. 5		
Q. 6		
Q. 7	T6 - User friendliness T5 - Security and privacy issues	Technology Related
Q. 8		
Q. 9		
Q. 10	P4 – Avoid bureaucratic red tape	Process Related
Q. 11		

Table 4.4 Questions mapping with factors of Q Set1 (for Management Assistants)

Question	Factor	Factor Category
Q. 1	General Questions (Identify the office, Age and Seniority)	
Q. 2		
Q. 3		
Q. 4	R2 - Needs of training	Process Related
Q. 5		
Q. 6		
Q. 7	T1 - Choice of Technology	Technology Related
Q. 8	T6 - User friendliness	
Q. 9	T5 - Security and privacy issues	
Q. 10	T1 - Choice of Technology	Technology Related
Q. 11		
Q. 12	M3 - Support from other stakeholders	Member Related
Q. 13	R2 - Needs of training for support staff	Organization Related
Q. 14	L2 - Amendment of EPF laws	Legal Related
Q. 15	M3 - Support from other stakeholders	Stakeholder Related

Table 4.5 Questions mapping with factors of Q Set2 (for Assistant Commissioners)

4.4 The Data Collection Methodology

As discussed earlier in this chapter the data collected using all these three method viz. Using Questionnaires, Related Documents and Interviews, were kept in a data store for data analysis. Following diagram shows the way how data is kept in store.

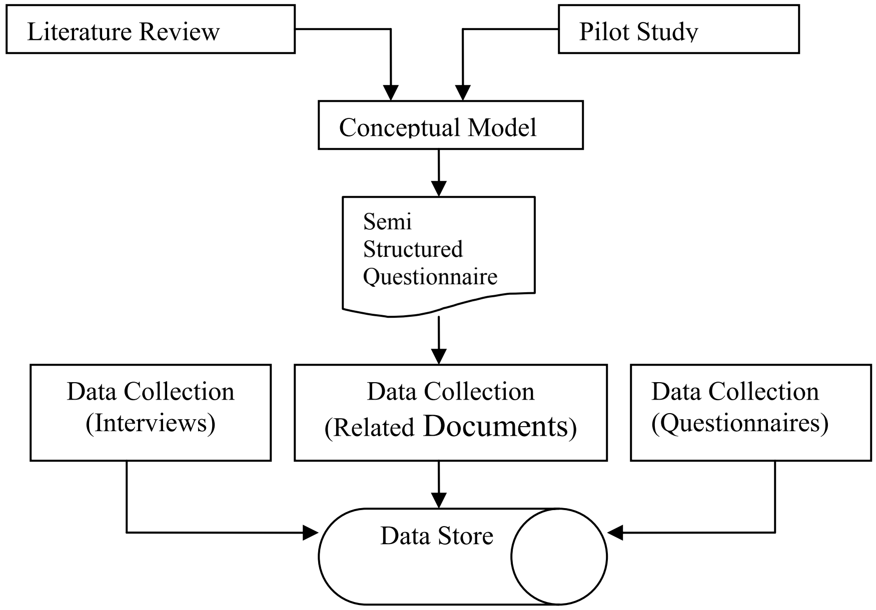

Figure 4.2 Data Collection Methodology