Chapter 2

Research Methodology

This section covers necessary tools needed to get into analysis of the mentioned research questions and the general and specific objectives focused out of them. Since this is an unexposed area of system development in Bangladesh, a part of the section is devoted to clarify the **terms** and **operational definitions** used in this study. This is expected to build an understanding of public-private mix system in health care and contracting out in context of Bangladesh. A conceptual framework for the study is presented second half this section.

2.1 Terms and Operational Definitions

Contracting out—in this study the contracting out approach involves an agreement between THC (public) and private eye surgeons aimed at, serving the Cataract patient for maximum utilization of existing health care facilities at THC and improves under utilization of inpatient department of THC. To reduce the disability is another aim. Here patient has to share part of recurrent cost to get service from the contractual agreement between public and private provision.

Private providers—the private providers in this study deals with those only who has capability to provide surgical eye care for Cataract patients and who will able to come in contracting arrangement with THC. The government does not control private providers' actions.

Public-Private mix—combination of public and private system in financing or/and provision of health care. Different combination of public and private responsibility for the financing and provision of health care services can be plotted below in figure 2.1. But

it can be possible in other forms also like combination of public and private in provision only or combination of public and private in financing only or it can be in both fashions. There is enough room to mix private and public sector in health care in different ways.

Conceptual approach of P-P mix

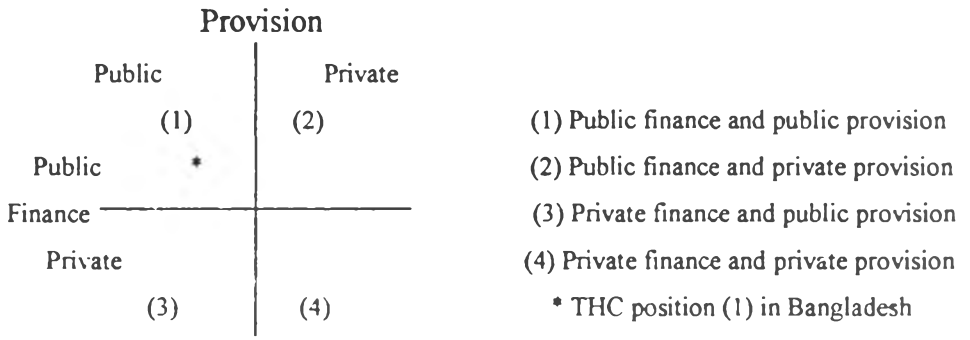

Figure-2.1: Conceptual approach of P-P mix
Source-Donaldson and Gerard, 1993

After-hour OPD clinic (evening clinic)—after normal office hour (8:oo to 16:00), OPD services for working people.

$$\textbf{Bed occupancy rate} = \frac{\text{Total No. of patient days}}{\text{No. of Beds} \times \text{No. of days in the period}} \times 100$$

Patient days means total number of patients in daily census counted in monthly or yearly and daily census includes remaining patients of previous day + admission of the date.

Additional cost– extra cost to establish contracting out arrangement for Cataract surgery. In THC some facilities are already there for surgical care. There is an Operation Theater for surgery with necessary equipment like light, trolley etc. But if contracting out will be conducted for Cataract surgery some additional cost is required for microscope,

slit lamp which are capital cost and recurrent cost per operation will go for doctor fee, staff fee, supplies and utilities. Administrative cost must be accounted (Table 2.1).

Table 2.1-Additional cost for contracting out of cataract surgery at THC

Additional cost	
Capital cost	**Recurrent cost**
New instruments	Pay and allowance
Microscope	Lens, drugs for patient
Slit lamp	Administrative cost
	Utilities, supplies

Potential benefit-- the study concerns with the benefits those are expected to be the possible out comes of contracting out for cataract surgery at THC. These are considered in terms of equity, efficiency and quality of care and patient's satisfaction. Table 2.2 shows the potential benefit components.

Equity-- according to the study context equity here is defined as equal access for equal need, equal utilization for equal need and equal expenditure for equal need*. That means every cataract patient under one THC will get equal access, equal treatment and need to expense equally.

Efficiency--according to the study point of view, here best uses of scare resources are made by the THC to improve under utilization of IPD as well as increase productivity. The Cataract care is also worth while as benefits exceed cost (some benefits are not measurable in money term e.g. social benefit to reduce disability).

Quality of care—in this study quality of care deals with facilities of care instead of non-existing and cure rate after surgical treatment for Cataract.

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* Literature review chapter has described more on equity and efficiency issue.

Table 2.2 Potential benefit components and possible outcomes after contracting out for Cataract surgery at THC

Benefit components and possible outcomes			
Equity	**Efficiency**	**Quality of care**	**Patient's satisfaction**
↑ Accessibility for disadvantaged group. ↑Availability of service for all Cataract patients.	↑Utilization rate of IPD. ↑Productivity. ↑Administrative efficiency. ↑Economics of scale. ↓Patient's direct and indirect treatment cost.	↑ Treatment facility instead of non-existence. ↑ Quality of care due to competition among private providers.	↑ Patient's satisfaction due to facilities with in locality. ↑ Satisfaction due to reduces direct and indirect treatment cost. ↑ Quality. ↓ Disability

Besides these benefit components, potential benefit covers wide range of area in social perspective.

2.2 Conceptual Framework

The conceptual framework of this study comprises of two parts; one part for THC and its problems and other part are the remedial measure of mentioned problems. As under utilization is identified as a major problem of health care delivering of THC therefore, causes of under utilization have analyzed. After that to solve the problems, P-P mix has taken into account. Contracting out (type of P-P mix) has considered as the feasible solution. As described before "Cataract surgery" is considered as an experimental case of this study, therefore, additional cost for this surgery under contracting out arrangement is

taken into account. Potential benefit in terms of equity, efficiency, quality of care and patient's satisfaction are considered. To build a P-P network is also concerned. Furthermore, the study has chalked two models for contracting out. One is Purchasing model and another is Leasing model. In Purchasing model the contracting out between THC and private providers, encouraging referral system that means private providers will refer patients from their provision to THC and a net work of public-private will established. On the other hand, in Leasing model the THC role will change from providing care to monitoring care. For both models financial arrangement, additional cost and potential benefit has discussed. Details have been discussed in the following chapter that how each model will work and what types of information and data need to collect for operating the models. The key ideas of this thesis are sketched in Figure 2.2.

Conceptual Framework of the Study

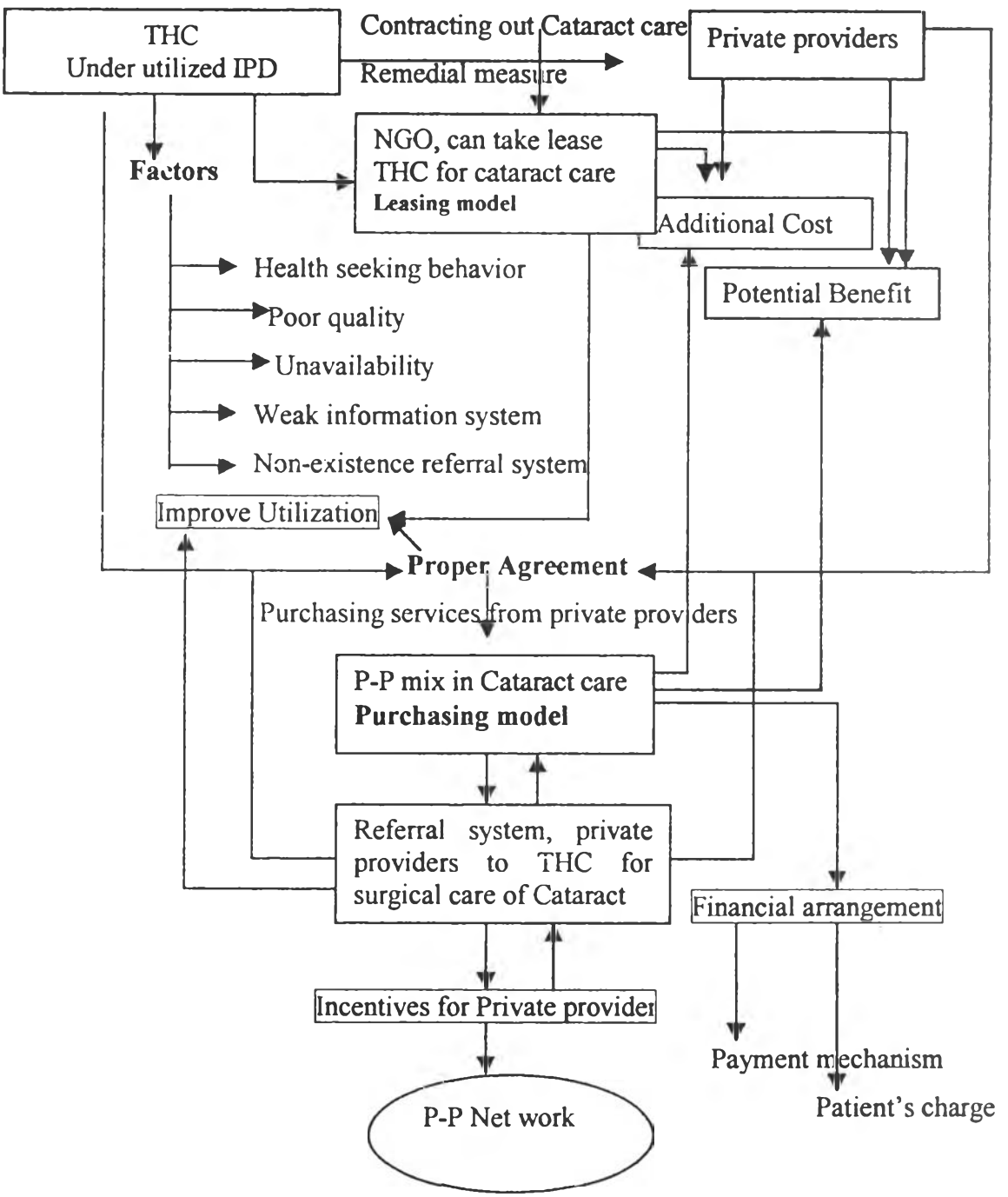

Figure 2.2: Conceptual framework of the study.

2.3 Study Method

This is a descriptive study and an explorative analysis of contracting out in Bangladeshi context that can lead to action research. As the study is an explorative analysis therefore, though sample unit and population is defined but sample size is not defined exactly.

Based on the conceptual framework described on figure 2.2 some key variables are chosen for detailed analysis. The method of measurement of these variables along with sources of necessary data and information needed for the analysis are presented in Table 2.3.

Sample unit

In this study sample unit is the place where the specific activity means contracting out will be organized and that is the THC with more than 300,000 population is the sample unit.

Population of the study

Population of the study has three parts; first one is the patient who are suffering from Cataract with in the particular geographical area of particular THC with out age and sex discrimination. Second part is private providers who practice eye surgery with in same geographical area and THC. The final part is the NGOs who work with in same place of THC.

2.4 Key variables

- In patient utilization rate in THC
- Additional cost of contracting out arrangement-in forms of capital cost and recurrent cost.
- Potential benefit from contracting out in terms of equity, efficiency, quality of care and patient's satisfaction.

Table 2.3-Method of measurement of variables for contracting out at THC in Bangladesh

Variables	Methods of measurement	Data source
Utilization rate in IPD	Count IPD patients and calculate Bed occupancy rate.	THC record book
Additional cost i) Capital cost ii) Recurrent cost	Cost per item	THC Budget: revenue & expenditure budget
Potential Benefit i) Equity ii) Efficiency iii) Quality of care iv) Patients' satisfaction	Accessibility- total No. of patient/day, Waiting time for operation. Productivity-No. of operation per day Cure rate	THC record book