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POLICY INTO PRACTICE:
A STUDY OF PUBLIC POLICY IMPLEMENTATION AND
THE ROLE OF LEARNING

VOL. II

JILL SCHOFIELD

Doctor of Philosophy

ASTON UNIVERSITY

December 1998

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CHAPTER SEVEN

PREFACE TO CASE STUDIES AND CONTEXTUAL INTRODUCTION TO FIELD RESEARCH

7.1 Introduction

Chapter Two presented a critique of the literature concerning contemporary public policy and strategic investment appraisal in health care. However, there is a paucity of empirical data, derived from the field, which explores the specific detail of what was both technically and philosophically new for health managers in terms of policy implementation. The four case studies which are presented here aim to provide some of this empirical data.

The purpose of this brief preface is to explain the nature of the more detailed learning necessities faced by the actors. These learning necessities arose because of the introduction of an internal market into health care and as a consequence of the introduction of new capital accounting mechanisms.

The NHS has had a formal capital investment appraisal system for nearly two decades. The procedures to be followed are laid down in the 'Capricode' and 'Concode' manuals. The 'Capricode' guidance is built around steps to develop a series of option appraisals for capital investments (DHSS 1987). 'Concode' provides guidance on tendering and contracting for construction project management and building works. It is a multi volumed technical manual written by NHS Estates for building and works staff.
That the option appraisal technique has come to be seen as synonymous with capital appraisal in the NHS is exemplified by Perrin (1993). However, the predominant interest in the processes and the techniques involved in capital investment appraisal has derived less from the accounting schools and more from health economists. The health economists were particularly interested in the cost-effectiveness techniques used to discriminate amongst options (Drummond and Ludbrook, 1985).

As the guidance accompanying the Options Appraisal documentation itself explains, the procedure is one which is intended to reflect a logical sequence of events needed to progress health investment schemes from inception to completion and commissioning. The approach can be described as highly formalised, bureaucratic, hierarchical and a reflection of the stewardship approach to capital investment. The documentation uses terminology such as “sound”, “consistent” and “accountable”. Each task and phase of the process must be completed and authorised prior to advancement to the next stage, and this is one of the main control mechanisms used. The approach is not dissimilar to that used throughout the public sector in general.

7.2 What is New: What needed to be learned
The most important and far reaching change to the established capital planning process came about because of central government’s decision to require that NHS Trusts submit a business case for capital investment, after an option appraisal had been completed and had demonstrated an a priori case for investment.
The new constraints on the established capital planning process were imposed by the requirement that the option appraisal and new business cases had to demonstrate the following:

(i) the need for the investment to be contiguous with the Trust’s strategy;
(ii) that strategic cognisance had been taken of competitor developments;
(iii) that the scheme is affordable - affordability is defined as the ability to demonstrate that purchasers wish to, and can afford to pay for the proposed investment;
(iv) the scheme is self-financing and can demonstrate a positive rate of return and that subsequently the financial viability of the Trust is not jeopardised.

The introduction of a requirement to produce a business case can be discussed in the light of the new policy environment of the quasi-market. There had to be an explicit acknowledgement at an operational level of the impact of competition and how this would subsequently impact on investment strategies. Furthermore, the investment had to acknowledge the purchaser role, especially in terms of their planning wishes and their financial ability to afford a new investment. Finally, the business cases were required to submit to the newly introduced capital charging mechanisms and demonstrate a positive rate of return on their investment.

The tenor of the guidelines, both in terms of intent and linguistically, reflects commercial business investment ideals and terminology. There were new requirements to:
(i) define business strategy;

(ii) describe and measure market risk;

(iii) implement capital accounting mechanisms;

(iv) demonstrate affordability and define purchaser support for the investment;

(v) demonstrate financial viability of the Trust;

(vi) define the needs of the Trust.

Figure 7.1 shows the overview of the current Option Appraisal system with the inclusion of the Business Case phase. The first draft of the revised Capital Investment Manual was released by the NHS Management Executive in 1993/94 to incorporate new guidance on capital investment appraisal in an internal market. It includes previous guidance from the DHSS (1987), and also “Capricode: Health Procedures for the NHS, and Option Appraisal - a guide for the NHS”. In short, the new guidance emphasises the need for all investments to be seen in the light of overall strategic objectives to both purchasers and providers; to take account of the impact of competition and overall demand for services and finally, it addresses the issue of affordability, but only briefly and in terms of its impact upon provider prices. Chief Executives of Trusts were now required to take full responsibility for the implementation of all stages of capital schemes and this is linked to their performance related pay.
However, even prior to the publication of the new Business Care guidance and the revised Capital Investment Manual NHSE (94)31) (DOH, 1994). Trusts were cognisant of the need to reflect the changes consequent upon the internal market and the introduction of capital accounting and capital charging.

As referred to previously in Chapter Two, the capital charge consists of a depreciation charge on assets plus a target (6%) return on assets employed. The depreciation rates accord with a pre-defined set of asset lives and the target rate is determined by central government. The key point in terms of investment appraisal is that there is now a cost for capital.
As a consequence of this and the internal market pricing mechanisms, investment projects have to demonstrate that they can support a required income. The required income can, in turn, be defined as the operating costs of the investment plus the capital charge element. The capital charge element of the investment is fixed and varies only in accordance with the overall capital cost of an investment. In relation to required income, price becomes a very important variable. It is based on an average cost of a service which must include the capital charge element. Unit price therefore becomes a function of activity levels.

Within the investment decision scenarios, the problem of showing that an investment is self-financing in terms of securing the “required income”, is further compounded by a number of other variables. These relate to changes in land values, changes in the discount rate used in discounted cash flow techniques and also changes in the discount period.

Despite the guidance explaining what was required for the new investment appraisals in terms of broad headings, there was no explanation of (i) how to achieve the requirements either technically or philosophically, nor was there an explanation of (ii) the operational consequences of these new investment requirements.

The following four case studies present the details about how NHS managers implemented the new business case requirement and how they learnt to deal with the aforementioned points (i) and (ii). The case studies relating to investment decisions cover:
Case 1  A Children's Resource Centre.
Case 2  A new Pathology Laboratory.
Case 3  A Private Patients Hospital in an NHS Hospital.
Case 4  The Re-development of a Joint Teaching and District General Hospital.

Pseudonyms have replaced the names of the actual NHS Trusts within the case studies.

Figure 7.2 tabulates in more detail the specific learning necessities for each case. The table shows these more local level learning requirements within the broader remit of the six substantive areas of learning consequent upon the new Capital Investment Appraisal guidelines.

Finally, the four case studies are very specific examples of capital investment appraisal, although from the researcher's broader experience the issues raised in the cases can be found in other NHS capital project teams. Although Chapter Six discusses the research design in respect of validity and research rigour, it is helpful to be aware of such issues as generalisability and external validity.

Paradoxically, the points in favour of case based data such as rich ethnographic detail, real actor perspective, the sense of pace and time which cases give, are also part of their weaknesses in terms of generalisability. Thus, it is only possible to generalise to the extent that the conditions found in these cases can be found elsewhere. The same argument would also hold true in respect of external validity. External validity could
have been constructed by comparison to other cases outside of the NHS, but with similar policy constructs, or by a form of comparative benchmarking to other cases. Neither of these approaches have been adopted in this research. Nonetheless, the rigour and validity required for good research has been ensured by using triangulation as referred to in Chapter Six. Moreover, the justification for the design is very much based on the positive, post positive arguments outlined in Chapter Six.
<table>
<thead>
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<th>Define Business Strategy</th>
<th>Describe and Measure Market Risk</th>
<th>Investment Capital Accounting Mechanisms</th>
<th>Demonstrate Affordability</th>
<th>Demonstrate Financial Viability of the Trust</th>
<th>Define the Needs of the Trust</th>
</tr>
</thead>
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<tr>
<td>(1) Children's resource centre</td>
<td>Business independence</td>
<td>Need for technical detail</td>
<td></td>
<td>Difficulty of forward planning</td>
<td>Difficulty of data gathering and forward planning</td>
<td></td>
</tr>
<tr>
<td>(2) New pathology laboratory</td>
<td>Potential externalisation and rationalisation of services = services disaggregation</td>
<td>Lack of knowledge about competitor positions</td>
<td>Negotiation. Relativism. Mixed economy.</td>
<td>Difficulty of assessing financial risk</td>
<td>Paucity of data in the quasi-market, reliability of contract data</td>
<td></td>
</tr>
<tr>
<td>(3) Private patients' hospital</td>
<td>Commercialisation and entrepreneurial behaviour</td>
<td>Difficulty of measurement in a quasi commercial model</td>
<td>Identifying sources of capital funding</td>
<td>Multiple affordabilities</td>
<td>Marketing and sales promotion</td>
<td></td>
</tr>
<tr>
<td>(4) Re-development of teaching hospital</td>
<td>Macro level downsizing and rationalisation</td>
<td>Uncertainty about long term effects of capital accounting mechanisms</td>
<td></td>
<td>Problem of management of very complex financial structures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 7.2: Matrix of learning necessities. Cases 1–4: Substantive consequences of new policy initiatives which had to be learnt
7.3 Coding convention

As explained in Chapter Six the case studies have been designed according to Stake's (1995) description of the 'Harper School'. The following coding conventions have been used in the four case studies and have been placed in the margins:

△ \textit{Interpretative Comment}

⊙ \textit{Substantive Issues}

◊ \textit{Explanatory Coding Concepts}

In order to clarify the coding for the reader Figure 7.3 follows. This figure is also used in Chapter Eight for the analysis of the case studies.
Figure 7.3: Open coding of concepts from case studies

<table>
<thead>
<tr>
<th>Column 1 INTERPRETATIVE COMMENT</th>
<th>Column 2 SUBSTANTIVE ISSUES</th>
<th>Column 3 EXPLANATORY CODING CONCEPTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of ignorance</td>
<td>Business independence</td>
<td>1 Capacity</td>
</tr>
<tr>
<td>Design &amp; build solutions</td>
<td>Internal competition</td>
<td>2 Stakeholders &amp; external links - communication with</td>
</tr>
<tr>
<td>Demand forecasting / need assessment</td>
<td>Proving affordability</td>
<td>3 Historical antecedents</td>
</tr>
<tr>
<td>Sufficient knowledge base to question</td>
<td>Demand assessment</td>
<td>4 Catalyst to action</td>
</tr>
<tr>
<td>Capital planning changes &amp; new bus. cases</td>
<td>Data gathering / data handling</td>
<td>5 Structure bureaucracy</td>
</tr>
<tr>
<td>Project processes</td>
<td>Need assessment</td>
<td>6 Timing / opportunities / topical</td>
</tr>
<tr>
<td>Pricing</td>
<td>The definition and role of units of activity</td>
<td>7 Project teams</td>
</tr>
<tr>
<td>Peripheral rules, Contextual validation</td>
<td>Role of centre &amp; type of advice / guidance</td>
<td>8 Bureaucratic obedience</td>
</tr>
<tr>
<td>Institutional constraints / enhancers</td>
<td>Pricing, Costing</td>
<td>9 Expertise</td>
</tr>
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<td>Microcomputing</td>
<td>Market risk</td>
<td>10 Strategic translation</td>
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<td></td>
<td>Competitor analysis</td>
<td>11 Recording</td>
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<tr>
<td></td>
<td></td>
<td>12 Knowledge development: - Pooling intelligence; - Comparative knowledge; - Initiation; - Practice</td>
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<tr>
<td></td>
<td></td>
<td>13 Discretion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14 Peripheral rules</td>
</tr>
<tr>
<td>Pan metropolitan acute restructuring &amp; fallout consequences</td>
<td>Market share - market differentiation</td>
<td>15 Predictive ability / forecasting</td>
</tr>
<tr>
<td>Contemporary trends / knowledge / changing models of care</td>
<td>Strategic uncertainty / technology prediction</td>
<td>16 Key actors / teachers / knowledge diffuser</td>
</tr>
<tr>
<td>Externalisation of markets</td>
<td>Business viability</td>
<td>17 Complexity</td>
</tr>
<tr>
<td>Development of qualitative criteria c.f. option appraisal guidance - speciality specific</td>
<td>Informed purchasing, degree of sophistication of purchasing</td>
<td>18 Knowledge diffusion</td>
</tr>
<tr>
<td>Clinical / managerial relationships</td>
<td></td>
<td>19 Detail</td>
</tr>
<tr>
<td>Joint ventures</td>
<td></td>
<td>20 Co-ordination &amp; communication</td>
</tr>
</tbody>
</table>

No additional categories for Case Four
CASE STUDY 1

The Childrens' Resource Centre:

The Dale Trust

Vignette 1.1

Both land and car parking are at a premium in Dale. It was particularly difficult to park a car at Sainsbury's Supermarket midweek because it was nearly always full. This was because the car park for the supermarket is also shared with the district general hospital. Consequently, both staff and patients walk through the alleyways connecting supermarket to hospital.

Adding to the general traffic confusion, lack of space and manoeuvrability were four huge, interlinked portacabins. These temporary buildings (which had been there for 17 years), formed the Clarence Centre a resource centre for children with mental and physical disabilities and serious developmental delays.

An additional headache for the average Sainsbury's shopper was the slightly distressing experience of seeing these children dropped off and picked up from the centre by a multiplicity of vehicles - adapted minivans, cars, ambulances, cumbersome pushchairs or just being carried. It made one realise that this was a whole potentially unwelcome variant to the ubiquitous school run. It was also so public; most of the children seemed to have little control over their bodies and were floppy and uncoordinated. Worse still, some parents or carers, seemed to have not one but two of these children with them.

These portacabins are however going to be moved - Sainsbury's are, according to the local paper, going to pay the hospital for the land they are on and extend the car park. Supposedly, the children will go to a new centre, perhaps at Rylands Hospital, six miles away, on the edge of the Borough next to those other unfortunate teenagers with learning difficulties in their special bungalows. It really is a beautiful setting there, though on the edge of the country, secluded, peaceful.

Context and Background

The Dale NHS Community Trust formally gained trust status in April 1992, it was one of the first wave trusts. Its formation resulted in the physical, philosophical and strategic separation from the acute trust and its associated three general hospitals in Dale. For the chief executive, financial director,
assistant director of planning and medical director the preceding twelve months had resulted in immense amounts of work. Such work was not just the day to day planning and running of a service, but also, for the first time these people had sole responsibility for strategic planning for the Trust.

The strategic planning requirements were laid down by the Department of Health, but were also mediated by the Regional Health Authority (RHA). The requirements were to produce a five year strategic plan for service rationalisation, service development, capital expenditure and rationalisation programmes together with a comprehensive marketing plan and organisational development plan.

The core of the management team were the chief executive, Joanna, Malcolm, the finance director, Alison the planning and service director and David the medical director. They all appeared to work well enough together. A typical visit to this team would always take place in a converted mock Tudor mansion which were the Trust Offices, and these offices were separated from any of the patient areas and community units by about four miles. Continuous strong pots of coffee and at least two members of the team semi chain smoking behind voluminous and scattered in-trays, always gave the encounters a frisson of anxiety, hurriedness and a feeling of constantly growing pressure which made me feel that at least somebody or something was about to explode. This never happened within my observation and each member expressed their emotions fairly openly with no concealment of either their short tempers, or their pleasure in the social interchanges which happened at the meetings. Indeed, it was not until I had finished the recorded interviews with Alison that my own interpretation of this anxious, pressurised team was confirmed by at least one of its members.

When the Dale Trust was created, it took on strategic and operational responsibility for chronic and acute mental illness together with adult and child learning difficulties and the full range of clinical psychology and support
services. It was also responsible for non mental health community services, including community nursing and school health services. As a consequence of its broad range of services, the Trust had a complex and wide ranging network which involved stakeholders with varying degrees of power. In common with other community units, many of the services which the Trust provided were intersectorally based and involved cross agency working particularly with the Local Education Authorities (LEA) and Local Authority Social Services (LASS).

The Children's Resource Centre and Characterisation of Client Group
One such service was the Children's Resource Centre (CRC), designed to provide comprehensive, multi-disciplinary and easily accessible services to the under fives with special needs and support to their families, ideally at one identifiable location. The Resource Centre was known as 'The Clarence Centre' and was based in portacabins within the grounds of the District General Hospital. Overspill from the centre was accommodated at Rylands Hospital four miles away. Rylands Hospital was also a residential home for young adults with learning difficulties. The Clarence Centre was established in 1959 and the current portacabins had been in situ and in use since 1972.

A fully comprehensive service for children with special needs is only achieved with inter-agency working. This leads to the importance of not only joint planning with other agencies, but also to some extent physical proximity. Under the 1981 Education Act, local authorities were required to make a formal assessment of children with special educational needs and subsequently make a statement of the needs identified. This activity is generally known as 'statementing'. The assessment is based upon the judgement of various health professionals and educationalists. It is also best done in an environment where all aspects of a child's needs can be observed simultaneously.

The Clarence centre has, since its inception, had an agreement with the LEA to provide classroom facilities in the centre to allow such observation and to
facilitate very close liaison with all professionals regardless of their agency. To this end the LEA also contributed £60,000 in 1975 towards the cost of new buildings at the overspill site at Rylands Hospital. The Centre also provided accommodation and facilities for Dale 'Portage', a voluntary body which specialises in unconventional and powerful physical and occupational therapy for this client group.

In talking to members of the Trust, particularly the Community Paediatricians, I was struck by the almost naïve certainty that 'one day we shall have a new centre'. Their comments were not those of people who felt that it was somebody else's responsibility to develop a new centre, more that they did not know how to go about doing it themselves. It was an opinion in sharp contrast to the rapidly hardening view of the executive team who now understood that because of their Trust status they were entirely responsible 'as a business unit' for formulating and executing a capital programme for the replacement of the Clarence centre. Prior to the NHS reforms much of the impetus and technical planning needed for capital planning would have come from the Regional capital and service planning teams.

That the Clarence Centre needed to be replaced was generally accepted by all parties and it had been under consideration by Dale Health Authority for the past eight years (previous to 1992). The current service fell short of being ideal, or even half way adequate, in a number of ways. The split site location had lead to a disjointed service which was confusing both to parents and the children themselves. Some services, such as hydrotherapy, were located at Rylands Hospital meaning travel between sites. Added to which physical facilities at both locations were poor and the outpatients department in particular was overcrowded.

Furthermore, in terms of the functional provision and relationship of accommodation, there was also a poor match. There were no separate rooms for parents who needed advice, counselling and meetings. Storage was too
restricted, resulting in the inefficient transfer of Occupational Therapy and Physiotherapy equipment between rooms. There was also little flexibility in terms of accommodation, limiting the scope for integrated activity and group work, especially when there was an increased emphasis on group work such as language and motorskill training.

The current poor physical conditions of both sites lead to a number of economic inefficiencies, particularly in terms of ongoing maintenance and remedial work. Support services were duplicated on both sites, adding to overhead costs. Finally, the general rundown nature of facilities added to a potential negative spiral of non-achievement in the Unit. It was believed that a new centre would stimulate recruitment and retention of staff and scarce key workers, particularly child psychologists and speech therapists. Clinical staff also believed that a new centre would help the promotion of training and research.

**Previous Planning Initiatives**

The planning history of the Clarence Centre is a good example of three dominant aspects of NHS capital planning: planning blight; planning at risk and planning interdependencies. Many of the operational staff at the centre had been involved in planning initiatives earlier on, to the extent that some of the doctors had persuaded a small group of architects to draft some plans for a new centre for no fees. This the architects had been willing to do, such was the emotional appeal of the service in question.

Planning blight had occurred because of a number of interrelated strategic uncertainties. The main uncertainty surrounding the future of the District General Hospital on its present site, and lack of agreement on the future of the acute unit’s capital strategy (itself having gained Trust status soon after the Dale Trust). Planning at risk occurred because of very sensitive local planning restrictions surrounding possible new sites for the Clarence Centre. These restrictions related to the delicate balance between the NHS and the local
communities, some of whom resisted the integration of handicapped people into suburban areas. On two occasions planning permission for a new centre was applied for and refused in a local market gardening area.

Related to this refusal was the example of planning interdependency, not only with the acute Trust, but also with Dale Borough Council. The outskirts of Dale fall within Metropolitan Green Belt Land and the Dale Borough Unified Development Plan rigidly upheld planning restrictions in this area. Thus no NHS planning which might result in capital developments on new sites could advance because of the overriding regional planning legislation.

Catalysts For Action
In the middle of 1991 there occurred a very interesting and timely coincidence of factors which, from the NHS side, were heavily influenced by the changing attitude to and technical treatment of capital. As a result of capital charges, capital assets were no longer uniformly regarded as a positive asset held in trust for future generations and the protection of the NHS. Rather, if they were unproductive they were now seen as a burden to a Trust because the 'cost' of capital would add to the unit price charged to the health purchasers and may make these prices uncompetitive. The Regional Health Authority therefore began a systematic land valuation and disposal programme. From a business perspective the Dale Trust had to now take a realistic view of its capital stock.

The 'value of capital' argument also had an effect upon the future of the District General Hospital. There was uncertainty about the long term future of the District General Hospital at Fairfield, and as an indirect consequence of the Regional land disposal programme, the current site occupied by the Clarence Centre portacabins was to be offered for sale to Sainsbury's supermarket chain hence solving the car parking problems, and releasing capital for the NHS. There were, however some constraints upon this offer, namely, timing. All agreements had to be signed within six months of the initial verbal offer, and the Clarence Centre site had to be cleared, ready for demolition and
construction by the supermarket, a further six months after the signing of agreements.

In terms of capital accounting, this offer meant that immediately the site occupied by the portacabin had acquired an opportunity cost of £5.7 million pounds. It is worth noting that at the time (1992), the commercial property market in South East England was in serious economic decline, therefore the £5.7 million offer was regarded as excellent. In turn this was to act as yet another pressure trigger because it was believed that if this agreement failed, then another viable offer would not be forthcoming.

The communication route for this offer was complex, but helps to typify some of the ambiguity in the evolving relationship between the centre (i.e. Regional Health Authority and District General Hospital) and the early NHS Trusts. The responsibility for the regional land valuation lay at Regional Health Authority level and was placed in the hands of the then Regional Architect and Regional Surveyor. Sainsbury's communicated their offer to these two people. The offer itself was then communicated to the District General Hospital - upon whose land the Clarence Centre sat. In turn the Chief Executive of the District General Hospital communicated the offer to the Chief Executive of the Dale Trust.

This chain of communication appears laborious, but it was, in the context of the issues involved, bureaucratically correct. It also serves to highlight some very subtle, status and power issues which were at play. The District General Hospital was not legally at this stage an NHS Trust. Therefore its assets still 'belonged' to the District Health Authority. One of its assets was the land occupied by the Clarence Centre. On the other hand, the Dale Trust was already an NHS Trust and consequently held accounting and stewardship responsibility for its capital assets.
In order to obtain additional capital for development, the Dale Trust needed to construct a business case for investment to the Treasury, via the Regional Health Authority. Given that capital is rationed in the NHS, then the £5.7 million offer from Sainsbury's took on even greater significance. It legally reverted as a sum of money to the Regional Health Authority into the capital pot because the District General Hospital was not a Trust.

Furthermore, because the District General Hospital wished to redevelop, it too eventually would try to make a bid for this money, although their overall demands were in the region of £60 million. Hence, there was a clear example of internal competition for capital money. This competition served to increase the pressure on the doctors involved in terms of time constraints, - i.e. the Trust which could get its business case finished first would have more chance of meeting the Sainsbury deadline.

The financial offer galvanised the Dale Trust into planning action more quickly and effectively than in the preceding eight years, throughout which many had sought to find a solution for the inadequacies of the children's resource centre.
Vignette 1.2

The first meeting of the Dale Trust CRC planning group meet in the early morning in February 1992 in a suburban architects' office. Eight of us sit around an oblong table, and I pour the coffee - partly to feel involved, and partly to justify my presence. The atmosphere is genial and relaxed with some vague discussion proceeding about classic Sunbeam cars. I mentally register that it makes a change from football. In the centre of the desk are four large ring bound files which contain the Capital Investment Manual for the National Health Service.

I know one person on the team fairly well, and have met another briefly. Ossie I know well and he is a chartered accountant who has been 'retained' to assist Norman, the Trust's accountant, with the financial proposals. Alison, I had met only recently; she is the planner for the Trust and the project to develop a business case for a new CRC is her responsibility. She is in her mid to late twenties and has been a graduate NHS trainee. I note that she does not chair the meeting; this is done by Harry who looks just like my stereotypical example of an architect - early fifties, nice tie, check shirt and cord jacket. The other team members came from the Regional Health Authority; Robbie a capital planner, and Steve the surveyor from the Region. This was the first and last meeting which he attended.

"I need to emphasise the importance of timing. Sainsbury's won't wait. They'll make a similar offer to the garage if this isn't sorted by May", Steve raps out.

The statement takes the group aback with its forcefulness. Harry shifts in his seat and coughs...

"We can get a good design and build solution fairly quickly, but there is always the issue of planning permission". "Robbie maybe you can help us here?"

Robbie nods reassuringly and proceeds to explain the options available for a new site for the CRC.

The discussion about sites takes about 15 minutes and the group falls quiet. Norman gestures to the investment manual.

"So, maybe this will tell us how to do it".

Data Gathering

Following on from this first meeting, the project team met every three weeks for a period of five months. Bilateral meetings and submeetings occurred
around these formal meetings, together with a series of telephone calls and written communications in the form of aide memoirs, memos and letters. There was a fairly clear division of labour within the project team, and a systematic allocation of tasks for both individual and collective responsibility. The structure of these tasks was almost completely delineated by the Capital Investment Manual and its constituent stages. It was only when these stages were unpicked that the immense complexity of 'proving' a case for affordability of a capital investment in the public sector was encountered, particularly because of the difficulty of demonstrating and measuring output. What is more, this output had to be predicted forward in terms of future workload.

Defining 'Need' and Future Activity Projections

Data gathering was one of the first tasks addressed by the group. They knew that the quantitative and qualitative information which they presented in the case would form the bedrock of their proposals and arguments. Two sorts of data were identified very early, namely financial and activity data. The business case needed to describe and explain past and future levels of activity at any new centre which might be built.

Traditionally, the epidemiological basis of mentally handicapped children has proven to be complex in terms of its predictive value. No single epidemiological basis for the client group can be identified. Children under five with special needs vary in terms of the severity of their disabilities and intensity of their needs. A number of broad categories can be identified for the purposes of classification but they are limited in their use for predictive purposes. Five groups of genetic causes of developmental retardation can be identified; Downs Syndrome, sex chromosome anomalies, other autosomal chromosome anomalies, disorders with Mendelian inheritance patterns, and multiple congenital anomalies.

Studies on the population prevalence of the standardised mortality ratio of these groups varies greatly and, for the purpose of projecting the future
workload for the proposed centre, were not pertinent. However, of the five groups, Down's Syndrome and multiple congenital anomaly present the highest proportion of incidence overall in the general population. Multiple congenital anomaly, as a category, also includes neural tube defects which in 1992 was not known to respond to folic acid intake taken prior to pregnancy as a preventative measure.

Faced with the very real problem of having to predict future activity and needing in part to base this on epidemiological foundations, the team tracked down an emeritus professor of epidemiology in the field of mental handicap. She guided Alison through the vast quantities of data pertinent to the issue. In many ways, this was a break with the past, since prior to Trust status, hospitals which had to plan any services were able to contact the Regional Health Authority who had access to specialists in every field of healthcare. With the decreasing emphasis on the Regional Health Authority as a resource and more as an accountability node, the Trust spent a lot of time tracing and securing expert help, which they in turn, had to pay for themselves.

A jigsaw of information was painstakingly pieced together from different sources but was not comparable for the purposes of validation. Generally, severe retardation is classified as an IQ of less than 50 and one of the pieces of the jigsaw was the use of norms. In the past much of NHS planning had been based on the use of the 'norm' which means using an average or ratio approach. Unpublished national reports at the time suggested that 35 children per one thousand school entrants would show some evidence of retardation.

It is difficult to provide an accurate forecast of the needs of these children and their carers. This is in part, because of the number of 'lost' cases, which in turn is due to the poor survival of these children into early adulthood and middle age. Handicapped children present a substantial work load for health carers for a short time, together with a huge, and sometimes devastating impact upon
their families. However, no account can be taken in planning terms of these 'lost' cases, nor of the emotional impact which a handicap can cause in a family.

The team knew that Downs Syndrome accounted for about thirty per cent of all severe mental handicap. Evidence of a statistical link between the advanced age of the mother and an increase in the prevalence of Downs Syndrome in children born to such women had also been known for some time. 'Advanced age' in a mother is deemed to commence at over 30 years.

Gradually evolving evidence locally in Dale was, however, pointing to an increase in births to women over thirty, but of course the team were cautious of making direct causal links between chromosomally derived handicap in children and the over thirties.

In the South East of England, birth rates among women over thirty are over a fifth higher than those of any other region of England and Wales. Between 1980 and 1990 the overall number of births for women aged over 30 increased by 30% whilst for those in their late 30s the increase was 40%. If current trends continued 40% of all births would be to women aged 30 and over by the year 2000. Most of these births were expected to occur in Social Classes I and II.

An added complexity was that congenital abnormalities are not the sole influence causing special needs in children. A wide variety of other causes are at play. Amongst these are the influence of low birth weight on the failure of a baby to thrive and develop normally. Much of the evidence also points to low birth weights being prevalent in socially deprived populations.

Advanced medical technology and the availability of neonatal intensive care units means that many of the very low birth rate babies are surviving longer into early childhood. These children are highly likely to need intensive support
later. Childhood accidents, HIV, non accidental injury and general failure to thrive may also result in children having special needs.

Defining and predicting future need, translating this into a service demand, and in turn planning a service solution to meet this demand, proved to be an almost impossible task for the team, given the constraints of ordinary demographic forecasting. Added complications lay in the inability of the planners to predict improvements in prenatal diagnosis, and the role which selective terminations might play in reducing the numbers of handicapped children in the area in the future.

Alison took on the role of co-ordinating the data search to inform the measurement of need and its translation into a size for the new centre. In the end a wide variety of different sources were used varying from the epidemiological data, past trends, comparative planning information used elsewhere, and performance indicators, such as recommendations from the British Paediatric Association and the BMA's joint working party on medical services for children. Formerly there had been a regionally based paediatric sub-committee of clinical experts whose job it was to collate and disseminate such information. This task now fell to local responsibility.

Dale is unique in that it has a very well organised, multi-disciplinary, child development team. It was from these operational staff that some valuable information was gained in terms of the impact which different types of handicap had on the actual work load, tasks and routines of carers based in the centre.

**Business Independence and Getting to Grips with Technical Detail**

Summary results of the data gathering relating to future activity were presented to the project team after two and a half months. Interestingly it was not challenged by any member. Norman, the accountant, wanted to know about the sources for the data, but further than that did not question the nature of it. In the end, future projections of workload were based on arithmetic averages.
of past activity projected forward on the basis of demographic changes in
pre-school children, the general fertility rate of Dale, birth weight status,
perinatal mortality rates and the local notifications of congenital malformations
in the area.

The conversion of projected activity into the beginning of a service model was
based on measuring the number of 'case contacts' per potential future client.
These contacts were subdivided into the broad task areas of outpatient care,
speech therapy, physiotherapy, occupational therapy and audiology. It was
already known from past experience that many of the children would require
the early identification of important medical conditions which may effect their
development. Such conditions would be congenital dislocation of the hip,
congenital heart disease, severe deafness, severe visual impairment, cerebral
palsy, impaired growth and a range of emotional problems. Many of the
children would have a combination of problems and would require intensive
assistance with their general mobility and specific motor skills. Others would
require help and care with feeding and toileting and specific medical
intervention in the form of dressings and the administration of drugs.

During my observation of the two meetings, where these discussions were
proceeding, I realised that I was witnessing the articulation of need for this
client population. It also occurred to me that not far from Dale, in the south of
Kent, maybe a similar exercise was proceeding in relation to the channel tunnel
- how did they do it, I mused? How could they predict future traffic and
volume through a tunnel for which there was no precedent?

Indeed, the projected activity used by the team was in effect based on the same
ratio of contacts as the current client base were receiving. From a client base
of 81 in 1990, there was a generation of 10,163 contacts. The child
development team did believe though that it currently reached only 50% of the
local children with special needs. They concluded that in five years of the unit
being opened, the total number of clients would rise to 172, creating 19,396 contacts in total.

Once this activity level had been established and agreed upon, then the architects and engineers translated this into a spatial pattern of rooms and services, each with their own functional content and relationship. I was sufficiently experienced in this process to know that this is where the capital planning process used to end - with the finalisation of capital costs derived from the architect's and quantity surveyor's plans and estimated costs. A stark realisation was acknowledged by both myself and the team that this was now only the beginning of the business of justification for the capital investment. The guidance in the capital investment manual required a strategic justification for the investment, as well as a proof of 'affordability' in the internal market of the NHS.

The fourth meeting of the project team was dominated by discussion by the two accountants.

"Norman, I'm sorry but I do not believe that the capital charges are included in the net present value calculation".

Ossie continued:

"The nominal interest is 6% within the capital charge, and the current Treasury discount rate is 6%, but they are both separate".

Capital charges had been introduced as part of the new regulations relating to the internal market in the NHS. Trusts were now required to charge for their services to cover all their costs, including capital assets. Capital charges were to be levied on assets and comprised a depreciation charge and an interest charge. It was either a mark of the degree of trust which Norman had in Ossie, or a lack of confidence which prevented him from challenging Ossie's summary of how the new system was to work. Either way, considerable doubt was...
expressed and ignorance shown by all members of the project team about how to operate the capital charging system. Malcolm, the Director of Finance at the Trust, did not usually attend the project meetings. However, he was called upon to contact the 'Trust Unit' of the NHS Management Executive for technical clarification.

Once again, I was intrigued by the precarious nature of knowledge - why did the NHS know how to do the capital charges and the NPV and the Trust accountants didn't? It was as if the Trust's staff were unwitting participants in a vast experiment, uncertain of the rules of engagement.

**Technical Accounting Requirements**

Financial data had to be gathered in equal amounts to the activity data. The Trust did not have a HISS (Hospital Information Support System) system and much of the data relating to staffing was gathered from disparate pieces of paper, old ledgers and even exercise books. I was impressed by the tenacity and systematic way in which often junior members of the therapy staff kept detailed records of how many treatments they had performed and how long they had taken with each client. Constant reference to the Capital Investment Manual guidelines on the types of information needed for a financial appraisal was made by the team members, less so by the architect and quantity surveyor and more so by Alison and the two accountants.

In order to commence the cost-benefit analysis of the proposed investment options, three broad areas of cost had to be calculated. These were: the total capital costs including all engineering costs, professional fees, equipment, and costs and locations factors pertinent to each building site. Secondly, staffing forecasts in terms of total numbers, grade and experience had to be estimated in relation to the overall projected activity, and finally all other non staff revenue costs, including the new capital charges, needed to be calculated. None of this was new. Two members of the team had just had experience of constructing these costs prior to April 1991. The fundamental difference in the
post reform NHS investment appraisal was the new requirement to price the proposed new service, ensure that it was affordable to both the trust and purchasers, obtain written purchaser commitment to the proposals and the price and to assess the degree of risk involved in the proposed investment.

Vignette 1.3

"How much do we have to pay to get extra benefits" said Alison.

"That assumes you know what benefits you want in the first place" replied Norman.

"We just need this building. In any case it has got to be built if we are to get off the Fairfield site and let Sainsbury's in", continued Alison.

It was Wednesday evening, a good time for Alison to work late because her (newish) husband also worked late in town on a Wednesday. Added to this, Joanna could always be found amidst her pile of ash and paper on a Wednesday, because it was the Trust Board meeting the following Thursday: so far she hadn't attended one project team meeting, Alison had to constantly keep her updated.

Norman had brought along a bottle of wine which everyone drank out of white plastic cups from the Maxpax coffee machine. Tonight was the night that Alison and Norman were going to get to grips with the financial appraisal for the CRC option appraisal and business case. Get to grips that is, with the help of Ossie, his lap top and Lotus 123 spreadsheet package.

Ossie was a whiz at 123, he also had a remarkable ability to soothe the most anxious of NHS employees. Ossie keyed in the agreed capital costs created by the architects and quantity surveyors and based upon the Department of Health cost allowances. He then constructed another spreadsheet for the staffing forecasts for the four proposed site options. Alison held the loose sheets of hand written and typed A4 sheets upon which she had gathered all the information needed. In terms of staff, 20.78 whole time equivalents were to be proposed over a three year period. Finally, Ossie keyed in all the non-staff costs like utilities, general services, transport, training and subsistence costs, appliances and equipment.

It was well past 8.30 p.m. by now, the wine had been finished and the level of concentration was intense. I wondered, if the centre was every built, whether these figures formulated in the haze of tiredness, wine and worry would in effect form the baseline budget upon which so many people's hopes and schemes would be based?
Norman and Alison were well prepared for the next project meeting after their evening session with the spreadsheets. A consolidated spreadsheet had been formulated for four site options for the new Children's Resource Centre. On this consolidated spreadsheet there was a summary of all the revenue costs, including the capital charges. It was from this consolidated spreadsheet that the team and the Trust Board had to calculate its prices to be offered to the purchasers. This was to be its first demonstration of whether or not the scheme was affordable. The estimates showed that the current service cost £455,137 per annum, and the three new options varied from £718,466 to £797,559, obviously nearly double the cost of the current service because of the inclusion of capital charges.

As a result of the new regulations relating to the internal market in health care, capital charges were included in overall running costs, although identified as a separate item. Thus, the greater the initial capital spend, the greater the capital charge and hence increased running costs. The effect of this upon the overall affordability of the scheme is such that, the higher the capital charges the higher the price of the service to the purchaser and this could result in the new scheme being more expensive than the current service.

Within the project team, the realisation and understanding of this relationship between capital costs, capital charges, price and overall competitive viability, emerged very gradually. It emerged through the exploration of individual understanding of the basic assumptions about how the new Capital Investment Manual and its rules worked within the overall context of the internal market.

It was, in my opinion, a mark of the considerable degree of trust and openness which had developed between the group, that allowed for this gradual dawning of knowledge and understanding and its subsequent sharing and explanation within the group. It was, further, also a function of the availability of some expertise in the form of Ossie the accountant, who had a thorough
understanding of the theoretical workings of capital within the commercial sector.

**Learning To Price the Service**

At the next project meeting, there was considerable discussion about the technical requirements for pricing the service for each of the four options. Again, specific reference was made to the Capital Investment Manual which clearly states that the unit price of a service is calculated by using full absorption cost, including capital charges. The unit price within this case was calculated by dividing the total costs (running and capital charges) by the volume of predicted activity, thus giving an average price per attendance.

The project team was heavily handicapped by a lack of information about approaches to pricing within the NHS. Their level of knowledge was equivalent only to their understanding of the NHS Management Executive costing guidance. Nor was there any comparative specialty pricing data available for services for handicapped children.

The decision was therefore made to divide the new total cost of the service for the three options by the new projected activity of 19,396 contacts. The project team, particularly Alison and Norman, displayed a considerable degree of discretion in taking this decision. The final results of the decision, i.e. the unit cost per contact for each of the three investment options, was presented to the Trust Chief Executive and Chief Accountant. They were, in turn, accepted by them.

In terms of the requirements of the NHS capital investment procedures, the project team had completed its tasks in that it had conducted an economic and subsequently a non economic appraisal of options. Furthermore, as a requirement of the new internal market, they had calculated the price of the service consequent upon investment. However, they were not able to assess by themselves the extent of the affordability of the options. Affordability had to
be calculated in respect of how affordable the proposal was for the Trust and for the purchasers. Nor had they been able to assess the degree of risk involved in this investment. In order to do this it was necessary for them to involve others outside of the project team, specifically the Chief Executive and her networks.

**Legislative, Institutional and Stakeholder Constraints**

It had taken the project team four months to get to this stage. They had suggested three options for the redevelopment of the Children's Resource Centre. The detail relating to each of the options was laid out in a comprehensive preliminary report to the Trust's Chief Executive and Trust Board. The three options were (i) to redevelop the Rylands Hospital site in order to take the extra capacity from the portacabin sites, (ii) to utilise a disused community hospital in the northern part of the borough, and (iii) to have a new build option in the very centre of Dale, close to the railway station and shopping areas.

One of the singular most important technical details which the team had produced, was the unit price of the service - based on each 'contact' with a client. They had calculated the current price to be £44.78 per contact, (assuming 10,163 contacts), the price of the new service at each of the options ranged from £39.18, £43.30 and £42.00. Thus, they had calculated a drop in price, but this was entirely due to the mathematical denominator of 19,396 cases which had been used. This denominator was based upon the team's assessment of future demand converted into cases.

When the chief executive received the draft report, she did not comment upon the assumptions of almost double the amount of activity which was predicted for five years hence, and which had been calculated through the process of assessing need for the client group. Instead her attention went immediately to the location of the options:
"We can't have this centre in the middle of nowhere, the 'friends of the Clarence Centre' will want it to be in the centre of town and they are quite right."

Alison took Joanna through the document and the logic which lay behind it and Joanna next explained that it was necessary for the local education authority to be consulted and their views sought, as they would still be using any new facility for teaching, and had invested an original £60,000 in the Clarence Centre.

As far as the elements of risk and affordability were concerned, again Irena requested that the Trust's Chief Accountant work with the project team, to develop a view on these matters which could be presented to the Regional Health Authority. A meeting was arranged between representatives of the Trust - Alison and Joanna and representatives from the Dale local Education Authority and Social Services. I attended as an observer. Apart from the context of the NHS internal market, the Local Education Authority and Local Authority Social Services were also mindful of another major strategic factor, namely, the 1989 Children Act.

The introduction of the new Children Act 1989 makes it explicit that the evaluation of children's services in general cannot be confined to the assessment of what happens to children within one particular service agency.

Broadly speaking, the Act widens the duty which requires local authorities to consider the long term welfare of all children in touch with personal social services, to include children in the community who are deemed to be in need. The Act promotes a comprehensive definition of the duty to promote child welfare, and to widen the definition of child care in a spirit of promoting a positive well-being for children.

The Act has implications for policy and practice in health services, even though the lead agency is social services. It is recognised that health workers may be
the first to identify young children whose families are in need of support or protection through the Children Act. Hence the importance of such services as the Children's Resource Centre. Furthermore, the far-reaching nature of the Act in terms of its comprehensiveness and legal status, means that such services, which can provide assessment, multi-disciplinary and multi-agency working, should be in demand. Certainly, from the discussions which I observed, much of the rationale for increased demand, over and above that which was calculated on the basis of epidemiology, was justified by reference to the repercussions of the Children Act.

Children with disabilities are also specifically identified within the Act. Guidance under the Act explains that social services departments are required to work closely with education departments and health authorities. Finally, for those children with disabilities, the promotion of 'packages' of care with education, social services, and health authorities in partnership with parents, is encouraged.

The meeting with social services and the education authority took place at 5.30pm midweek in the LEA offices. Alison ran through the options available for the new resource centre. I was slightly taken aback by the way in which Joanna behaved with the Local Education Authority and Local Authority Social Services representatives (one man and one woman). She appeared so much more in control, with less evidence of the attendant disorganised and distracted air of overwork with which I normally associated her. I expected a long drawn out discussion about design, space and relationship of classroom to toilets, but no, at least three quarters of the conversation revolved around the Local Education Authority's original £60,000, and what it was worth now, and how they were going to try and reclaim this money back once a new centre was built. During the meeting, the Local Education Authority representative confirmed that she thought that, if the new centre was in the middle of town, they would play ball in terms of agreeing to support and place their teachers in it.
Alison and I went to the pub after the meeting. We chatted away, naively amazed at how decisions seemed to be made in the NHS, despite all the rules and regulations, and Alison pointed out that the next hurdle would be the 'Friends of the Clarence Centre'.

As expected, Joanna decreed that the 'Friends' wanted any new centre to be centrally located. Philosophically this was understandable. It was easier in terms of access for local transport. It meant clients had access to civic amenities such as parks, playgrounds and shopping, and was attached to less of a stigma of isolation. Economically it did not appear to be so attractive as its capital costs were higher but, once the unit cost was calculated, this amounted to a difference of £2.82 per case higher than the cheapest option.

These local, political preferences were fed back to the project team, and they were taken into account during the non-economic scoring exercise required under the option appraisal guidance. This exercise was familiar to all team members, not having changed as a result of the internal market. Local preferences were included by weighting the relevant factors.

**Affordability, Risk and the Final Decision**

The project team was nearing the end of its task. It only remained now to demonstrate purchaser affordability, and the degree of market risk involved in the investment. Not one member of the project team had ever 'measured' risk in the NHS internal market, nor had they conducted a competitor analysis.

The Trust was in the fairly unusual position in that it had one main purchaser for the services of the Children's Resource Centre, namely Dale Health Authority, and a handful of General Practitioner fundholders. However, given the emphasis on community care, Dale did have a joint care planning purchasing scheme, thus joint monies between the statutory health sector, social services and voluntary sector, were used to fund contracts with the Children's Resource Centre.
Contracting was in its very early days when this investment appraisal was conducted. Moreover, there were insufficient comparative data sources to inform the project team's competitor analysis. They used the professional intelligence network of clinicians to ascertain whether other health districts had similar units, and these informal networks confirmed that the Children's Resource Centre was fairly unique in the South East of England.

To this extent the team was more reassured that by careful marketing of the service, they could increase the volume of contacts to 19,396, and so maintain the unit price at slightly below the current price, despite the preference for a new build option.

The capital investment manual provides very little guidance in respect of how to measure risk, except in terms of calculating various measures of sensitivity to certain assumptions. Once again the team referred to the knowledge base of the qualified consulting accountant, who constructed a 'what if' analysis of potential economic changes based on alterations to the total capital cost of the scheme and the changes in resulting capital and revenue charges.

Once more this manipulation of figures was dependent upon skilful and accurate use of relational spreadsheets, and a set of final 'tolerances' for prices to purchasers were calculated in this way. Thus the team were able to identify that, using their original research and assumptions, if the projected activity fell by 5% below the expected 19,396 contacts, then there would be a price increase of 2%. If activity fell by 15% there would be a 14% increase in price to the purchasers.

This was the information which was presented to purchasers in terms of purchasing risk. No non-economic risk variables were considered and members of the team struggled to find ways to measure non economic risk. Given the economic and non economic factors, and the influence of the chief executive and other stakeholders, particularly the Local Education Authority.
and Local Authority Social Services, the final report from the project team which was accepted by the Trust Board, and subsequently the Regional Health Authority recommended that the new Children's Resource Centre be built, from new, in the centre of Dale.
CASE STUDY 2

The Rationalisation And Redevelopment Of Pathology Services At The Goodwin Hospital.

Context and Background

Within the history of the buildings which make up the Goodwin Hospital, is reflected a condensed history of the British National Health Service. Dating in part from the early twentieth century, the hospital began like many, as a civic poor house, gradually developing into a fully fledged hospital by means of accretion of buildings. This accretion was stimulated in the early twentieth century by the necessity to treat the returning wounded of two world wars. Evidence can still be found of the EMS (Emergency Medical Service) huts swiftly erected out of pre-fabricated material to deal with this work. Carefully maintained and patched up in places, these huts exist on the St. Leonard’s site, an out of town hospital site which forms part of The Goodwin Hospital.

The hospital gained Trust status in 1991 and was one of the successful 'first wave' Trust applicants. The second, and major site, is located on the edge of the University of Goodwin campus, close to the impressive Goodwin Cathedral, and the modern high technology University of Goodwin Science Park. The new district general hospital which was conceived and planned in the 1970s, was opened in two phases in 1980 and 1991 on a green field site. When the original planning decisions were made, it was envisaged that the hospital would develop in three distinct stages. The third stage of development has not materialised, consequently some services, specifically clinical oncology and pathology sciences were, in 1993, when this study took place, 'stranded' on the older, out of town site of St. Leonards.
The St. Leonards site had gradually been sold off to property developers, with the result that only two clinical services were left there. In turn this had lead to isolation and the duplication of support services.

Local Competition
As part of the Trust's strategic intentions, it was planned to integrate all services as one site, that of the main hospital. This strategic aim was to be achieved against a background of intense competition within the local internal healthcare market. Due to its location within Goodwin, the hospital was steadily becoming one of the 'fall out' sites resulting from the Tomlinson review of the restructuring of the London teaching hospitals. What this meant in practice was that the hospital was faced with a variety of both strategic opportunities and also operational constraints.

The opportunities resulted from the excess bed capacity in central London. Consequently, clinical activity was to be redirected to the home counties and district general hospitals, rather than being dealt with in the teaching hospitals. For some specialities such as oncology, paediatrics and general surgery, The Goodwin Hospital had the capacity to cope with this redirected work. For other specialities such as neurosciences it would need to decide whether to invest on a large scale to provide the required services.

However, The Goodwin Hospital was not alone in realising the consequences of these opportunities. No similar acute services restructuring had taken place outside of central London, therefore within a radius of 35 miles there were six other district general hospitals, each eager to attract additional contract work, particularly when this was not from their resident commissioning authority.
One of the consequences of the London Implementation Group review and gradual evolution of the market in the South East of England, was that hospitals were quickly learning to differentiate themselves from their competitors. This differentiation took varying forms, it could be on the basis of the range of services available, or the length of the waiting lists, or the provision of community based, consultant led outreach clinics, or in terms of the perceived service quality. In short, it meant moving from a standard District General Hospital model serving a population of 250,000, to an Acute General Hospital model, capable of serving upwards of 400,000 population, whilst at the same time offering excellent accident and emergency services.

It was this route which The Goodwin Hospital had decided to follow, and it involved considerable risk because the neighbouring hospitals showed no sign of reducing their own attempts to also dominate the market. A component part of this long term strategy was to have in house diagnostic and clinical pathology services. In the beginning of 1993 these services were still based at St. Leonards hospital in premises which had, on three occasions, received reports from the Health and Safety Executive which required the hospital to significantly improve its physical premises.

In February 1993, the Trust board gave the go ahead for an internal project team to work upon, and develop, a full business case for the relocation and redevelopment of pathology services from the St. Leonards site. They were asked to produce a final report by August of the same year, in order that it might be considered by the NHS ME Trust outpost and the Treasury in late autumn 1993.
Vignette 2.1

One of my abiding memories of observing and studying this business case and its associated planning, was formed on the day of the first project team meeting. It was to be a large meeting, ten people in total, five people from the Trust; together with an architect, a quantity surveyor, a member from the Public Health Laboratory Service (PHLS), an ex regional pathology advisor and a freelance cost and management accountant called Ellie. Those people who did not work at the Trust were waiting in the main foyer of the hospital amidst the newly franchised retail outlets, when a new silver XJ4 Jaguar pulled up outside, out popped the said Ellie, quizzically asking where she could park the car, (the rest of us having hiked from the perimeter car park). Such insouciance was to mark the detached, coolly rational, entirely numbers driven approach to her involvement in assessing the options available for the redevelopment of pathology. It was to prove to be in marked contrast to the passionate, interest driven arguments, presented by the various departments who were to be involved in consequential moves resulting from one of the options being to relocate the pathology department into the main hospital.

Timing and Catalysts

The Trust's consideration of the future of its pathology services was timely. There was, in 1993, a national interest in this service prompted by two important studies by the Audit Commission (1991, 1993). In addition, there had been a series of comprehensive District based Audit Commission Reviews under the Special Project Services. The District Review for Goodwin was completed in 1991, and a summary overview of Pathology services based upon the district reports was prepared for the Regional Health Authority in September 1992.
Some key elements of the external and internal reports had a direct link into what the Trust was trying to achieve strategically with its pathology services. Whilst only advisory in their status, the Audit Commission reports provided influential and explicit guidance to the policy implementors.

In particular the reports acknowledged that there had been considerable advances in scientific skills and competence within hospital based pathology; but that, appropriate managerial techniques had lagged behind these scientific advances. Consequently, there were considerable opportunities for improved performance and particular attention needed to be given to the control of demand, use of resources and quality control of laboratory based testing.

I noted with interest, that the director of planning, who acted as the project team chair, referred to the Audit Commission reports on numerous occasions, and they were nearly always available for reference at the meetings. These reports also had an influence upon the local purchasers as was evident when they were interviewed by members of the project team.

It was clear that the detailed level of analysis and clarity of expression within the audit reports had served to demystify pathology for policy makers and influence their understanding and hence their decision making. A number of local health authorities had felt confident enough to commission separate reviews of pathology services to inform their purchasing patterns of pathology within overall clinical contracts.
The Nature of Pathology Services at the Trust

The director of contracting, Stella, and her clinical colleague, Dr. Davies, together with the estates manager Richard, formed the core of the project team. Both Stella and Dr. Davies were well versed in the contractual issues impacting upon pathology. They shared this information with members of the team at the first meeting, noting, in addition to the Audit Commission’s report, two other important strategic influences which had national repercussions. The first was the voluntary accreditation of pathology scheme; the second, fundamental changes in the way pathology might be delivered in the future.

Since 1991 developments had taken place to create a national voluntary accreditation scheme for pathology. The scheme was to be run by an independent body, Clinical Pathology Accreditation UK Limited (CPA). Like similar systems for other clinical areas, the accreditation scheme acts as external audit and quality assurance programme. Its relevance in a competitive market is to demonstrate a defined standard of practice and substantiate reasonable purchaser expectations. Within the Trust the accreditation scheme was taken very seriously, particularly by the technical staff in the laboratories. Its existence was often used by the technical staff and clinicians as a rationale or justification for specific facilities and equipment.

It was however, the second strategic influence which arguably had the greatest impact upon the deliberations of the project team. These were the potential changes in methods of pathology service delivery. Like the vast majority of District General Hospitals, the service model at The Goodwin Hospital was that of a centralised, conventional core pathology laboratory, with component laboratories reflecting the individual pathology disciplines, albeit that it was based six miles away at St. Leonards. Under this model, the pathology department is
responsible for pre-analysis factors, such as phlebotomy and ensuring effective specimen collection and delivery. It is also responsible for all analytical activity, a great deal of which is automated using multichannel analysers, especially within Clinical Biochemistry and Haematology. Under this model the pathology department is responsible for post-analysis in terms of medical validation, clinical interpretation, advice to other clinicians and the supervision of appropriate technicians.

However, there was and is pressure on pathology services to change their model of delivery, and some of these pressures derive from developments in technology and also pressure from General Practitioners to have more control over their patients' specimens and speed of results. The alternative models of delivery can be described as: near-patient testing; satellite laboratories; self-testing kits; and highly centralised regional laboratories. The project team needed to gather data from a variety of sources in order to be properly informed about the consequences of potential changes to the service model.

Assessing and Planning For Future Changes in Pathology Services

Near-Patient Testing is technologically dependent and as such its development was difficult for the team to predict. In addition, professional opinion was divided as to its efficiency, the Royal College of Pathologists having expressed some reservations about the approach, and their views were taken very seriously by the project team. Using clinical contacts, the team obtained the results of an important evaluation study which had been conducted at the Central Middlesex Hospital, where Near-Patient Testing had been incorporated into the concept of the 'patient focused hospital'.

Under this model, laboratory testing is dispersed to treatment areas, namely wards and any of the ambulatory care centres, e.g. investigation
units, outpatient and day care centres. Analytical equipment is decentralised and whilst the pathology department has overall responsibility to supervise this equipment, the actual processing based work is performed by any multi-skilled technician. The impact of near patient testing is not only operational but can also have an effect upon the competitive position of a hospital.

The obvious corollary of Near-Patient Testing within the community is that of the GP clinic and health centre. If a hospital adopted the concept of Near-Patient Testing, using the aforementioned models, its service to GPs and the community might no longer be available. This is because such a high volume of GP work requires large throughput auto-analyser machines which, theoretically, would be phased out given a system of Near-Patient Testing. As a consequence, there would be an immediate need for the GPs to access similar networked technology which they might try to do from a competitor trust.

Self-testing kits, such as those used for pregnancy, hormonal changes and diabetes, were not thought to pose a threat in the short to medium term, although the team did recognise the potential for growth in this area which might undermine their activity. Similarly, the concept of satellite laboratories, which commonly exist in such areas as ITU, paediatric units and coronary care units. The proliferation of these laboratories is generally frowned upon by pathology professionals, because of problems of quality control. If such a model is pursued by the hospital, it would mean an increase in capital costs because of a duplication of equipment.

The team spent two of its meetings discussing the possible impact of a centralised, regional laboratory in the south east of England, and trying to measure the competitive power of such an organisation. A
Regionalized laboratory model is common in the United States, where one laboratory may serve upwards of twenty hospitals.

A further variant on this model was the market testing of pathology services. There was pressure from the NHS Management Executive to market test all pathology services in England. The pathology department director had a good understanding of the requirements of market testing and suggested that there were two options; to ask another NHS provider to tender for services, and secondly, to ask a private provider. The team also realized that these two options would also form an option for the rationalization of pathology within the business case. However, in order to assess the financial efficacy of any tender, the Trust itself needed to understand the basis of its own prices. This in itself was very difficult, since the pathology department was unable to disaggregate costs, and hence prices, from overall clinical contracts.

External Competition
There were only two commercial providers available who could adequately tender for the comprehensive pathology services which were required at the Trust. The need to at one and the same time market test pathology, and to compile a business case, placed a considerable burden upon the hospital to the extent that they were unable to construct an adequate specification of services for the external provider. Initially, when contacted, one external provider JSPS laboratories requested £10,000 to complete a tender; this was refused by the Trust and they negotiated a tender which would satisfy the requirements of the option appraisal and the need to external market test the service. This was done in a spirit of co-operation by the private provider, who offered team members a visit to their laboratory.
The three storey, open plan, glass and metal building near Little Venice in London, was just over twelve months old when we visited the JSPS laboratories. Still known by its original name, the laboratories had in fact been purchased by the US company METPATH some three years previously. The atmosphere was one of a vast highly tuned operation, with banks of autoanalysers spread over three floors, interspersed with white coated technicians. It was also very quiet, even studious.

We were shown to the underground external receiving bay area by the managing director, David. If he was trying to convey a hard sell to the accompanying consultant pathologist, he didn't try very hard, assured as he was with what had to be the superiority of his own laboratory over any in the NHS.

Motorcycle couriers hummed into and out of the bay area one after the other, depositing and collecting specimens, and bearing witness to the fact that it wasn't necessary to have a hospital to perform diagnostic pathology.

Samples were coming in from all over England and Wales, and were immediately entered into the computerised data base which was itself linked to the banks of haematology and biochemistry analysers. David explained that nineteen instruments were 'on line' at any one time, together with not only automated results printer, but one which also triggered a fax to the originating clinician or test site. He also described the route which the 800 tests per day followed, within the laboratory from arrival to results transmission.

The visit, for me, was a humbling experience. The laboratory as icon of factory production, operational efficiency, and economies of scale. It appeared devoid of confusion and the piece meal, higgledy piggledy nature of many of the NHS laboratories I had experienced. I suspect too that it was rather a shock for the doctors from the Trust, who, whilst acknowledging its obvious merits, began to question David about esoteric test assays, such as those relating to hormones and vitamins, no doubt hoping that the laboratory did not have the capacity to cope with such tests.

Furthermore, the laboratory was already accredited under the CPSA scheme and fully registered as a training laboratory by the Royal College of Pathologists. We ended the visit with a nice lunch, and a grudging acknowledgement that here was a laboratory which, in terms of quality, could match the in-house service being offered by the Trust. Perhaps, far more importantly, was the cold realisation that this was real, external competition to NHS services, against which in-house services may well be measured in the future.
Market and Risk Assessment

The competitive requirements of the NHS internal market were not entirely new to Goodwin Hospital NHS Trust. They had in 1992 successfully completed a business case for the redevelopment of oncology services. During this business case they had learnt to demonstrate, and satisfactorily support, the need for such services, and predict future demand as far as was practically possible. Equally important, they had mastered the accounting techniques required for the capital charging system, and incorporated these techniques into their long term budgeting and investment appraisal.

In short, they were not novices at investment appraisal. However, the redevelopment of pathology services presented different challenges, mainly in terms of learning to deal with, and compete in, a very competitive internal and external market for such services, and how to analyse, assess and respond to markets for pathology. Added to which, by 1993 the Treasury was putting more pressure on Trusts to demonstrate exactly how a capital investment would affect the overall business viability of the hospital, and for this to be expressed in terms of risk and its consequent financial and operational management.

Certainly there was within the project team an intellectual understanding of these issues, the director of planning having come from a commercial publishing background herself. However, it was not until after the visit to the JSPS laboratories that the clinical members of the team were faced with the possibility of the raw commercialisation of their chosen profession and skills. Before the hospital could develop and explore the options for the reconfiguration of Pathology, they had to address these very issues of commercialism, competitor positioning, market risk and business viability, against the national strategic background, their local and regional issues and their specific operational constraints and opportunities.
My impressionistic assessment of Goodwin Hospital was one of a tidy, controlled, ordered and mannerly hospital. There was never a feeling of the frantic angst I had experienced at the Dale Trust; Goodwin Hospital was a serious place, conversations were controlled, contained little small talk or personal revelations, no swearing and maintained the corporate stiff upper lip. Maybe as a result of this culture, task responsibilities within the project team were allocated and assessed in an equally systematic and calm way. Thus, when it came to the time to assess the local market and define the Trust's own position within this market, detailed instructions were jointly agreed between the director of planning and clinicians. The Trust also co-opted an ex Regional pathology adviser, Dr. Green who brought along her extensive knowledge to the problem, and who was only too happy to share it with colleagues.

At least half of the team members knew what a SWOT analysis was, and in an informal brainstorming session they developed a SWOT analysis of their own laboratory, assessed against the laboratories of eight other Trusts. Detailed local intelligence was not available in terms of competitor facilities, staffing and work profiles, but, using shared professional intelligence and reports from the (now) defunct Regional Pathology Speciality Sub-Committees, a competitor profile of local alternative providers was developed.

The details of what was included in this profile was shaped by what the team knew influenced purchasers. Two important differences distinguished the way in which fundholders and health authorities purchased pathology services. Health Authorities were (then) unable to disaggregate the costs of pathology from their overall block clinical contracts, or indeed from their cost and volume contracts. On the other hand, GP fundholders were able to identify the exact cost of the pathology services they had requested. The GPs received financial data
from the Trust which could be disaggregated back to specific patients; furthermore, many of the GP contracts had been negotiated for three years.

The Trust decided to construct its competitor profile around four indicators namely; location and physical status of the laboratory, its facilities, professional expertise and skill and finally, tradition and past practice.

These factors were agreed by shared discussion, and in particular a constructive dialogue between clinicians and managers, the clinicians using common sense, professional language to describe how they would feel about using another hospital’s laboratory. In this way a chart was constructed to describe the eight other NHS laboratories which were deemed to be competitors to Goodwin Hospital.

An internal exercise was then organised to include the project team and the majority of the laboratory staff, for them to assess their own laboratory against the four dimensions used for the competitor profile. In this way, the team defined its own position in the market. They summarised that in terms of physical provision and facilities they were arguably in the weakest position. In respect of expertise and skill the Hospital felt itself to be the local market leader, not least because of its recognition, but also because it was the base for the regional training centre for post graduate cytology screening. Moreover, its profile was not that of an average district general hospital, but more one of a teaching hospital, because of its University unit and the number of academic related disciplines, especially the training of junior doctors, for which it was accredited. The team convinced themselves that such a profile created a very positive multiplier effect and promoted a dynamic attitude towards expansion and service delivery, which would be beneficial for their business case justification.
The team's interpretations of tradition and past practice was that of the referral patterns of general practitioners for all secondary care services, not just for pathology alone. However, they were unable to calculate or even get the data relating to the general clinical referrals to other hospitals to compare these to their own referrals and so calculate and define their true catchment area.

The Trust was acutely aware that the presence of a pathology service actually served to stimulate demand, and were concerned that any possible future rationalisation of laboratories away from its own could adversely affect other general referrals, and in the long term, their reputation. They finalised this particular sub-exercise by concluding that at a sub-regional level, two of the eight competitor laboratories had a strong competitive advantage, one in particular had an advantage in terms of location, but that Goodwin Hospital had the edge in terms of skill and expertise.

Assessing Risk and Business Viability
These arguments, particularly the positive multiplier effect of comprehensive clinical support services and critical mass, were central to the business justification in terms of service rationale, and also strategically, since the Trust wanted to convince its purchasers of its extended DGH role, one they believed was worthy of purchaser commitment by way of their contracts.

Under the business case rules however, the Trust was still required to 'prove' its market position as far as possible, particularly in respect of risk. Therefore it arranged a series of interviews with GP fundholders and Health Authority purchasers to discuss their plans, and to ascertain how the purchasers perceived and viewed the competition. Team members interviewed five purchasers and six GP fundholding practices. As far as the GP fundholders were concerned, there was unanimous
agreement that the key purchasing criteria in respect of pathology services were accessibility and price, where accessibility was seen as being of prime importance. Accessibility was defined as speed of results delivery, ease of specimen pick up and especially ease of contact with a consultant pathologist for advice and diagnosis.

The quality of the service from the Trust was accepted as being of a high standard. The GP’s opinion of quality was very much influenced by the reputation of the laboratory, their links with the PHLS and their status as a supra-regional assay service. Price was an important factor, but not as important as access and reliability; however, each of the practices interviewed had approached other providers in respect of tendering for pathology services. Consequently, they were aware of the range of price tolerances for their own volumes of work.

The results from the interviews with the health authorities was different. Overall, the level of awareness in respect of the impact of quality indicators within pathology amongst the health authorities, was very low. In general, pathology was seen as a support service for the major clinical contracts. As such, the individual price impact of the service was not a key issue for the health authorities. Nonetheless, when pathology services were viewed as an area where potential savings could be released, then the health authorities were more sensitive to the impact of price.

In terms of the quality of service, this was believed to be important within the delivery of pathology to clinicians, and hence within the clinical contracts. The purchasers had no detailed knowledge of particular key indicators of pathology quality or scientific good practice.
Those purchasers who were interviewed demonstrated an interest in the possible rationalisation of services within the sub-regional area, but were unable to define how they envisaged such rationalisation operating amongst the provider units.

A great deal of time had been spent assessing the market for pathology, the Trust’s position in that local competitive market, and the purchasers’ views of what the market had to offer. In total it took four people about eight days to gather this market intelligence. The results were largely qualitative, but informative and were used by the Trust in their business case as part of an overall justification.

There was a distinct picture of stringent financial constraints on the purchasers, who had no growth monies in respect of acute care, and who were actively seeking price reductions on their contracts, or volume increases at the same price. Compared with health authorities, GP fundholders were more motivated, and better informed about service delivery and quality. Moreover, their knowledge base meant they were able to seek out other providers and make informed purchasing decisions in respect of pathology. The consequence of this situation was such that The Goodwin Hospital had to ensure that its future investment decisions would not result in a price increase, but had to at the same time ensure that quality was maintained.

It was important for the Trust to be able to predict the market for two reasons; firstly because its wider market for pathology would contribute towards defining and quantifying the need for any new laboratories, and hence their size; secondly, such an understanding of the market also influences the degree of risk involved in the investment and in turn has an influence upon the business viability of the Trust.
Approach Taken Towards Need Assessment

Although the Trust had completed a business case for oncology services, and had during this project developed an approach towards assessing need, when it came to quantifying the total potential amount of pathology within an extended market, they were at a loss. This was mainly because of the demise of the regional statistical databases used previously for comparative purposes. It was very difficult to obtain such comparative data comparisons in the internal market because Trusts were in competition with each other, and knowing what one trust's workload was could give a competitive advantage.

In order to assess market share and future demand within the Regional Health Authority area, it was necessary to obtain workload data for all other providers from within the Region. Ideally, test level data could have been used for this purpose, and as part of their studies the Audit Commission had access to this information. However, the Audit Commission were unable to release this data, as it was felt to be confidential. Whilst the Regional Executive Office had asked for individual District Authorities to voluntarily submit their audit reports, only three District Health Authorities had done so.

Such an exercise, designed to size the wider market for pathology, had not been completed before. In the absence of specific test data, total request data generated by each district was used. This data was available in a consolidated form from the Regional Information Unit based on Korner request information and submitted by individual district health authorities. The project team realized that the figures needed to be interpreted with great caution since the data sets were incomplete.
Individual clinicians from the pathology department submitted their data for the trust in two ways, by total request by individual scientific discipline, and by individual test by discipline. Reflecting professional advice from practitioners and academic pathology departments, it was acknowledged that there were a number of difficulties in using data at test level for long range planning, mainly due to the fact that the large volume of individual tests can cause data handling and accuracy problems. In addition, not all disciplines actually record information at test level. Finally, comparisons between hospitals at this level are notoriously difficult when specific tests are recorded.

Given the limited availability of data and the high degree of uncertainty around future levels of market share of hospital activity, it was decided to use time trend analysis of request data from 1988 until 1992/93 by individual pathology discipline and to use this as a basis for the future prediction of demand. Historical time-series were examined to establish how the trends in requests changed over time and to identify a forecasting model most able to reflect that trend.

One of the benefits which the Trust enjoyed in its pathology department, in similar with other such department elsewhere, was the high level of numeracy amongst its professional staff. In particular the chief technicians in quite a large number of departments have PhDs in pure science and are exceptionally skilled at micro computing and statistical analysis. Such was the case of the Trust, and the technical staff appeared delighted to use their extensive repertoire, added to which many sub-departments, like haematology and biochemistry, also kept their own disaggregated data which was used as a check reconciliation.

The team, working together with departmental staff, also developed a very innovative approach towards calculating demand should there be a
service rationalisation in the future. This was based upon dividing tests into 'hot' and 'cold' tests, hot being those which must be performed on site, and cold being those which could be sent away, e.g. to an outside laboratory, such as JSPS. In this way, they were able to model a number of different scenarios based upon a decline and an increase in demand and to test for the financial viability of having or not having a full laboratory on site.

In policy terms, the initiation and completion of an option appraisal, non financial and financial assessment of these options for capital investment was not new, and, as explained in the background to the research, had been in operation for 15 years. The demands of the internal market and the requirements to develop a business case, meant that the Trust had to demonstrate the affordability of a project and how it would impact upon the financial viability of the Trust as a state 'business'.

Obviously, these two issues were new to the Trust, even given their experience of the oncology investment appraisal, they now had to predict and model pathology as a 'sub product' of their overall business which was acute hospital care. Moreover, affordability and financial viability were directly related to the Trust's position in the market.

The intellectual comprehension of these relationships was evident in the reasoning and the contribution which the Director of Planning made. She had come from a commercial publishing background, and had a good grasp of business principles in as far as they related to profit and loss accounts. The three core members of the team were herself, the Director of Pathology and Director of Estates and Facilities. Through her analysis and synthesis of these business principles applied to the NHS internal market, the two other key team members worked to
reconfigure the development options in order to reflect their impact upon the overall business viability of the Trust.

It was at this point that the accountant member of the team came into her own, not only like Ossie, in the previous case, did she have very well developed spreadsheet skills, but she was also able to integrate financial and statistical modelling with accounting principles and identify the impact of the development options upon the financial management of the Trust.

Using these first principles of business performance and accounting, applying them to the specific context of pathology and healthcare, the team developed a rationale to assess the degree of risk involved in the investment, the impact of it in terms of affordability and how it would affect their overall business viability.

**Approach Taken Towards Establishing Price of Service**

They began by analysing their income requirements for each development option which was shortlisted. As an NHS Trust, The Goodwin Hospital is required to make a target financial return of 6 per cent on all capital assets employed. In addition to a requirement to cover the operating costs in full, the Trust needs to set prices at a level to cover its depreciation on assets and deliver a surplus sufficient to make the 6 per cent return.

After the option appraisal exercise, four shortlisted options were chosen and duly labelled, a) the Day Hospital option, b) the Mansard roof option and c) the do nothing option (i.e. stay at St. Leonards) and d) the maximum contracting position option (i.e. use an outside laboratory). Using the formula for calculating income requirements of operating costs, plus depreciation, plus six per cent return on asset employed the Trust calculated the following.
Income Requirements (£'000)

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2,727</td>
</tr>
<tr>
<td>B</td>
<td>2,814</td>
</tr>
<tr>
<td>C</td>
<td>3,278</td>
</tr>
<tr>
<td>D</td>
<td>2,841</td>
</tr>
<tr>
<td>Current</td>
<td>£2,808</td>
</tr>
</tbody>
</table>

However, they realised that these calculations were only an expression of income requirements and that affordability per se had to be appropriate for the purchasers as well. At the time, the local purchasers were facing reductions in real purchasing power as a result of national requirements to reduce costs and because of alterations to the weighted capitation formula used to decide their total funding.

Therefore, the investment for pathology had to be assessed in relation to corresponding savings elsewhere in the Trust because of income constraints upon the purchaser. One way of doing this was to project the income requirements per option through to their impact upon individual service prices.

The Trust's accountant, Ellie the external accountant and a computer modeler worked upon these calculations but experienced problems in terms of data comparability. Purchaser funding is expressed in gross amounts of total capitation and only by aggregating all contracts could the specific impact of price increases from pathology be worked out. Therefore, average impact of price upon total purchaser contracts was used to assess affordability to the purchasers. The impact on prices of changes in pathology costs was extremely complex to assess since it
depends on a host of factors. Some of these are the apportionment of the costs of pathology between the various external customers who order test requests such as direct access tests, private patients tests, and other NHS contracts. Other factors include the apportionment of the costs of pathology services provided for internal customers from the hospital itself.

In the end, the calculations were based upon modelling how the expected changes in overall income behaved as an indicator only of price change. Using this approach the team explained that the Day Hospital option would result in price reductions of three per cent. Under the Mansard roof option price changes would remain netural.

The team were also required to quantitatively assess business viability. All NHS trusts have a pro-forma accounts system through which all financial business changes can be relatively easily modelled. The Trust's accountant fed the projected income and price changes resulting from the investment into these pro-formas to assess the impact upon its year end performance, assuming such factors as patient volumes and contract values remained the same. This approach was problematic because stasis in terms of patient activity could not in fact be assumed simply because of what was already known about the changes in the pathology market.

There were other factors besides price which needed to be considered when assessing the business risk of the investment, and these were directly related to the project and the various development options, namely: changes to costs, either in terms of operating costs or capital costs; changes to activity, either as a result of changes to underlying demand, or major changes in market share; and strategic changes including pan-district rationalisation of pathology.
The financial team developed a sophisticated model which fed in quantified changes of the above factors and calculated their impact in terms of income and 'price'. In some cases major assumptions had to be used, particularly in respect of the degree of displaced market share if pathology services were rationalized away from The Goodwin Hospital.

In addition to the quantitative risk factors, the Trust also had to consider the qualitative risk factors associated with each development option. As the project team did this it also discussed what management actions could be taken in response to risk. These actions were subsequently described within the completed business case. It was only at this stage that the project team felt the need to involve the Trust Chief Executive to support their management proposals in the face of potential risk.

The key area of risk was identified as a loss of requests and test volume through the laboratory. This would result in the same fixed costs (particularly capital charges) but would mean a higher average unit price which would be unattractive to the purchaser and mean a consequential drop in income to the trust.

The two options felt to be most closely linked to such a loss of volume were the Do Nothing option (stay at St. Leonards), and the maximum contracting position (use an outside laboratory). Under the latter option, the Trust would be very likely to face a loss of pathology business, especially from GPs where the 'cold' requests are subcontracted to a private sector organisation. Similarly, the lower level of liaison between requesting doctor and pathology consultants would almost certainly reduce the Trust's competitive position relative to other local providers.
Furthermore, in terms of its overall strategic role as an enhanced district general hospital, pathology has a wider role than that of test processing and results reporting. Other activities were seen to be of equal importance such as medical audit, education, research and development, epidemiology and the clinical management of patients.

In particular pathology laboratories are consultant departments and as such are the focus of their careers, development and education. The wider variety of activity which can be produced as a result of providing a full range of tests, including hot and cold is more fulfilling and varied for the professional staff.

Given the important role of consultant pathologists in planning any future service, and their obvious vested interest, the team had real difficulty in reconciling the perceived cost advantages of a pan district services (located away from the Trust) with the service and professional advantages referred to above. Nor, technically, were the Trust in a position to cost out a pan district service for proper financial comparison with other options.

**Final Decision and Choice of Option**

The overriding consideration in the formulation of the final choice of option for the location of the new pathology laboratories was the wish to differentiate the trust from its local competitors. It was felt that having a pathology laboratory on site would enhance the Trust’s relative competitive advantage.

Consequently, the preferred option which was included in the final business case was the ‘Mansard Roof’ option B. The business case was presented to the Trust Board for approval and onward progress to the NHS Management Executive outpost. The clinicians were all pleased as
it meant that they would be able to work in a free standing, dedicated laboratory. The Day Hospital staff were pleased as it meant that their unit would remain in tact.

I returned to the Trust two years later to conduct the interviews. There was a new chief executive in post who believed that none of the options were financially viable in terms of affordability. The new laboratory was to be built within a set of changing rooms which were surplus to use: an option which had previously not been considered.
CASE STUDY 3  
County Infirmary Private Patient's Wing  
Context and Background

The maxim 'professional Yorkshireman' is a suitable introduction to this case involving a capital investment appraisal for a private patient's wing in a district general hospital. The location of the hospital - The County Infirmary (CI) is in North Yorkshire. Three phrases in particular epitomise the feel of the Case for me as the researcher, they are my initial greeting from the Director of Operations:

"You need to understand that I don't call a spade a spade, I call it a shovel".

Secondly, the Trust was to become involved with a private hospital operating company called GBIH whose commercial director's approach to capital investment appraisal was:

"If it can't be written on the back of a fag packet, then it can't be written at all".

Finally, when asked by me how he learnt to do things, the same Director of Operations replied:

"I am what I am, and I know what I know".

Cryptic this may be, but as I came to understand the nature of this man more, and the hospital within which he worked, I also came to understand the importance of how individuals internalise knowledge and procedures in order to allow them to complete their jobs.
The County Infirmary NHS Trust became a trust in 1991 as one of the 'first wave' trusts. It serves a population of nearly 300,000 people, employs 3,500 staff, and needs to achieve a contract income of at least £68.2m in order to maintain and grow its current services and achieve the required 6% rate on capital employed.

In terms of geographical competition, the Trust is unopposed in its provision of acute care in the immediate vicinity. However, their close neighbours do at times encroach upon their NHS market. Supra regional specialty services are also to be found in nearby metropolitan areas.

County Infirmary could be described as a provincial, non teaching hospital complying to the one town, one hospital pattern and for whom the internal market has been a distinct success. The hospital describes itself as being straight forward, with nothing fancy and not wishing to be more than it is already. Consequently, it manages to avoid some of the worst excesses of teaching hospital rivalry, and the desire to explore clinical frontiers. The advantage being that such behaviour would cost money. In short, the County Infirmary has always lived within its means. It maintains a low but sturdy profile, and has become something of an icon as a well managed, financially solvent and locally responsive hospital. Some metropolitan doctors and managers might joke about it being in the sticks and being unsophisticated, but this is one of the hospitals visited by John Major and Duncan Nicholl, when he was head of the NHS Management Executive.

I became involved in the hospital in 1991 when, as part of a management development programme, they had asked for some help in developing business plans (as opposed to business cases) with their clinicians. The hospital management team also wanted to look ahead towards the world of contracting which they would experience in the
forthcoming April. The facilitation took place over a three day away weekend, during which a simulation of a contract negotiation was run. This exercise gave me the opportunity to meet all the clinical heads of directorates and their related operational managers. It also facilitated my later access to study the Trust's investment appraisal.

During my first trip to the hospital for the implementation research I re-acquainted myself with some of those doctors, being invited by the clinical head of medicine for coffee in the newly refurbished foyer cafe.

"We can do it now you know, Jill - business planning that is".

"Good", I replied, having no doubt that intellectually this man found it as easy as falling off the proverbial log.

"It's just those stupid waiting times we need to reduce in outpatients, they are in our targets for the patients charter".

At which point we were joined by the chief medical director, a pathologist who had just taken up a full time management post. This man was a lynch pin in the smooth running of the trust. His job was to liaise between the executive board and all the clinical directors. Unlike many consultants I had met in my career, he had no conflict of interest. A man in his early 60s, he relished his new role.

County Infirmary had adopted the Griffiths Report model of clinical directorates in 1989. They had made a success of it for a number of reasons. The Chief Executive, was unequivocal about the performance he expected from the directorate heads; the doctors were well paid for their efforts (in addition to their normal salaries). They took part in a performance review system via the Director of Medical Services, and it
had become something of a competitive advantage amongst peers to do well at the job.

**Commercialism In The Trust**

Coffee completed, I found my way to the office of Roy, Director of Operations. I had met Roy briefly at the business planning weekend, and knew he owned one of the largest local limousine hire service. This was a man who had a fleet of Mercedes and his 'Rollers'. His wife ran the business during the week, and Roy at the weekend. Roy was a business man, he used the language of his car hire firm to describe his 'business' responsibilities at the County Infirmary. He was also the Mr. Fixit of the Trust. Roy was head of estates, building and all other non-clinical support services, or in his words:-

"if it's not a patient, if it moves or gets built, it's mine".

It was apparent that Roy was to be the sole project manager for this scheme. He had just two junior clerical staff working with him, and later engaged a temporary project accountant who had experience of private healthcare investment appraisal. The scheme had no architect or quantity surveyor input, nor would it have until the Trust chose an operating partner. Roy explained that previous extensive work had been carried out by an American private health care firm, to examine the market potential for a new private patient's facility in the area. An initial proposal was drafted by U.S. International and presented to the Trust in November 1990. The proposal was based on building a twenty bedded unit within unused ward accommodation in the West Wing area of the hospital. The estimated capital cost for the scheme was then identified by U.S. International at £987,064.
The Trust accepted the proposal in principle, and the ensuing months lead to extensive negotiations, both in terms of the operational feasibility of running a private patient's wing within the hospital, and the extensive financial negotiations with U.S. International. The result of both these internal and external negotiations was an Outline Heads of Agreement drafted in 1991, and a refined financial analysis presented in October 1991. The U.S. International offer stated the following:

"U.S. International are willing to consider organising the structure of the capital investment for the unit in return for a facility rental agreement for a minimum contracted period of 5 years" (U.S. International proposal, November, 1990).

Roy explained in some considerable detail how he had established formal relationship with U.S. International. At the time they were operating a private hospital on behalf of the NHS in a neighbouring county and Roy had invested energy in developing a good rapport and working relationship with the Regional Executive Director of U.S. International. He showed me sets of formal minutes of each of their meetings and the extensive progress reports which he had compiled for the Management Board of the Trust. The level of detail within these reports was impressive, right down to the actual shift pattern of the junior doctors, who would cover the private wing, and the outline of the financial arrangements.

These exchanges occurred in March 1992, and Roy had called his project together to consider, for what he thought was the final time, the U.S. International offer, and to explore whether there were any other operating companies whom he could interest in the scheme to act as a negotiating lever for the U.S. International deal. If the Trust decided to fund the scheme itself, it would need to construct a Business Case for
the investment and seek approval from the Regional Office of the NHS Management Executive.

However, the scheme for the private wing was more than a business case, it was about a joint partnership deal with a commercial investor, which could also lead to an operating agreement. Joint venture projects for private patient facilities in NHS premises were not new in 1992, but the need for these arrangements to be contiguous with the requirements of the new capital investment appraisal criteria was. Added to which was the novelty of the whole requirement of commercial negotiation.

County Infirmary had developed something of a reputation as a commercially entrepreneurial Trust. Any person wishing to park close to the hospital had to use the 'pay and display' system. It had also developed a women's hospital wherein retail space was leased to Mothercare and other retail outlets. The culture of the Trust was very much one of 'if we can exploit something to increase revenue, let's do it'.

**Developing a business partnership**

My second visit to the Trust was in April 1992, and Roy appeared far less confident and optimistic about his plans for the private patient's facility. U.S. International in the United States had been subject to a leveraged buy out, and as a result U.S. International in the UK was purchased then a French Utilities company, and had come under a new management team.

There were also other issues which were affecting the Trust's strategy. The uptake of private medical insurance is sensitive to economic peaks and troughs and responds quickly to macro economic changes, since the majority of premiums are on an annual basis. In particular, for the
individual subscribers, new subscriptions and repeat business are directly linked to disposable income. Whilst a steady growth in insurance penetration on a national basis was seen up until 1988/89, in 1992 industry intelligence indicated an annual fall of between two to three percent.

Compounding the drop in individual subscribers, the gradually increasing number of redundancies within a whole range of companies also meant that private insurance penetration in the corporate market was also reducing. Few employees were able to negotiate the retention of their Private Medical Insurance benefits after redundancy. In addition, access to NHS facilities had been improving in terms of reductions in waiting list times for out-patients and in-patients. The perceived 'quality' of NHS facilities affects the public's willingness to pay for, and use, private facilities.

Thus in April 1992, the decision makers, both within the Trust and U.S. International, were faced with a rapidly changing managerial situation at U.S. International; a gradually contracting private insurance market, and a deepening UK economic recession. Consequently, U.S. International indicated in April 1992 that they wished to reconsider their proposal to the Trust in the light of re-exploring their own corporate strategy and the position of NHS private patients developments.

Later in the same month, U.S. International formally withdrew their proposal to the Trust on the basis that their capital developments would, in the future, be focused on building extensions to existing U.S. International facilities.
Vignette 3.1

"We've been badly let down by U.S. International, I have presented to the Trust Management Board the heads of agreement which we decided with U.S. International, and I suggest that we use this as a framework to consider where we go from here".

So began Roy's opening ideas for the private patient's wing planning meeting which he called, following the news of U.S. International's withdrawal.

Six of us were crammed into Roy's office, the director of medical services, matron, director of healthcare contracting and the finance director and clinical director of anaesthetics for part of the meeting.

"I think that we need to reconsider how the wing fits into our overall strategy as a Trust"

"Look Neil", replied Roy, addressing the director of contracts, "We've already done that, and I'm the poor sod whose got to make sure that we have an income stream coming in".

"I know, I know Roy, but we're going to face a problem of internal competition if we're not careful. Just imagine it, we may have an outside operator touting for GP fundholding business in the private patient's wing, when we're trying to do the same in the main hospital" retorted Neil.

"Well, if we price things properly, we should be able to handle that side of things", explained Brian, the Director of Finance.

"It's been o.k. at U.S. International's other private hospital in another trust, they haven't lost their fundholding work, it's got its own identity that place, and there have been no adverse industrial relations problems there", persisted Roy.

The meeting continued for about one and a half hours, Val, Roy's diligent secretary coming in and out with files, letters and Roy's proof that there would be sufficient income coming into the Trust if only they could find a new partner.

One of the things that always struck me about my visits to the Trust was the management group's willingness, even desire, to engage in detail. This was quite unlike any other hospital I had observed, where I
often heard the quote 'we can leave the detail until later'. It was
different at the County Infirmary, the team addressed the operational
advantages and disadvantages of running a Private Patient unit first, and
then used these issues to develop a framework by which to assess
potential partners.

The range of operational detail covered such issues as junior doctor
cover, theatre session availability, access to ITU (Intensive Therapy
Unit) and H.D.U. (High Dependency Unit) beds, pharmacy supplies,
catering facilities to the re-charging mechanisms to be used for those
Trust nursing staff who would work in the Private Patient unit.

"Well, Roy, just do one of those famous option appraisals of
yours to find us a suitable partner" ended John, the clinical
director.

"Yes, well, I will - Val - get me young Mike here now",
and off everyone went, having told Roy what they expected of him.

"I'm on my second marriage Jill, no wonder is it? I need to keep
some energy to play with this lad".

Roy pointed to a photo on the wall of a bald headed baby boy, which
bore an alarming resemblance to himself.

"Well, come on then, you and your business school stuff, who
can you think of who will want to join us".

"How about Big Eric" I replied.

"More like short Eric", said Roy
"Exactly"

"I never got on with the other man from GBIH, much preferred the U.S. International gang".

"Yes, I can imagine, but Eric's o.k., he's the Commercial Director now' I explained.

At which point 'young' Mike entered Roy's office.

"Try and sort out a meeting with GBIH, Mike, get them down here, we're not going there, sort out lunch or something".

**The Trust's Strategic Direction and Private Patients' Unit**

Eventually, and on behalf of the members of the planning group, Roy developed a range of aims and objectives in relation to operating the Private Patient facility and expressed these as a strategic rationale. The overall aim of the scheme was to maximise income to the Trust and to do so with the minimum of risk in terms of financial exposure, whilst minimising the capital investment from the Trust. The Trust also felt that they wanted to minimise the expenditure of managerial resources and time in terms of actively managing and marketing the private patient's business. An added complication was that the Trust had to ensure that NHS services suffered no detrimental effect from the provision of private patient facilities.

The generation of additional income for the Trust, not only from private patient's revenue, but also from other activities was becoming increasingly important for the Trust. Not least because of the continued efficiency savings which were expected from the hospital. Additional
income was seen as an effective way to defray the recurring efficiency savings which were required by central government.

However, not only is the additional income needed, but it was believed that the benefits flowing from such a development would be desirable for the hospital in the long term. These benefits were seen as maintaining and promoting consultant loyalty; the sharing of some of the financial surplus generated by the scheme with hospital staff; the promotion of patient choice and finally, the promotion of good relations with external business partners via a joint venture. All of which had to a greater or lesser extent been incorporated into the Trust’s overall strategic direction.

The Trust had generated £68,632 from four private beds up until the end of the 1992 financial year. Roy was tasked with achieving an income of £148,000 in the succeeding year as a result of a new Private Patient facility. The senior management staff within the Trust did appear to have a well developed sense of commercial acumen which seemed to have developed out of a common sense rather than a theoretical approach to business. The commercial philosophy which Roy applied to his limousine business seemed to have been transferred to the NHS. In discussions it was clear that everyone understood the consequences of a joint partnership in terms of a risk/return equation.

Generally, there is a risk return equation for investing in private health care facilities: the higher the risk, in terms of resource input that the Trust is prepared to make, the higher the return. The opposite is of course equally valid, in that the exposure to possible losses is greater and the more exposed the Trust becomes financially. The two main factors influencing the final adoption of a preferred strategy are the likely availability of capital funds under the external financing limit and the risk return profile to the County Infirmary. Development and
business 'ownership' by an outside operator is likely to give a lower return to the Trust, but the risk in terms of financial exposure is also lower.

The Trust wanted to adopt a middle course between the degree of financial exposure, and the acceptability of possible returns, against a minimum requirement for the additional revenue, which they needed to be targeted at £150,000. There was an additional area of risk to be considered and that was in terms of the opportunity cost of managerial time and resources which may be expended in actively running and directing a private patient's facility.

Similarly, it was believed by Trust managers that it is preferable for any private unit to be managed at arms length from the main hospital facility. In so doing, any possible negative public or political exposure is contained. The majority of these beliefs and assumptions were generally mirrored by the private healthcare industry, and the Trust had little difficulty in accepting them. I was particularly impressed by their level of knowledge about the industry.

Environmental Analysis and Local Competition

Locally, the major competition to any future private wing at the Trust came from the 'Independent Hospital', a commercial, for profit, hospital owned and operated by GBIH, Great British Independent Hospitals. The 'Independent' was small, 20 beds, with a theatre, imaging and diagnostic facilities, it was close to the Trust, and was relatively heavily used by their consultants for their private work. This was precisely the work which the Trust wanted to attract back to its own future unit.

As for any capital investment, within the Business Case Requirements the Trust was required to complete some market analysis which
includes a competitor analysis, rather similar to a business case for a purely NHS facility. However, unlike an NHS investment, the Trust had access to considerably more industry intelligence about competitors. This intelligence came from a variety of sources, one of the most important of which was a published source - *Laing's Review of Private Healthcare*, an annual compendium of activity, and financial data relating to private and independent hospitals. Other important sources were the consultants themselves, most of whom were willing to discuss their satisfaction, or otherwise, with the competitor facilities which they used.

Even though the Trust had at the time a relatively small income from private practice, the majority of this was from insured patients. Consequently, over the years, the more junior, clerical members of staff at the Trust, who prepared the patients' invoices and liaised with insurers on a daily basis, had also gleaned a myriad of small details, facts and opinions which, when they were interviewed by Roy's staff, built up into an informative picture.

Added to which, either wittingly or unwittingly, the original U.S. International report had also clearly identified the competitors in the private acute sector as not only the Mincaster Independent Hospital, but also a nursing home used mainly for terminations.

U.S. International was also in the unique position of being able to comment upon the provenance of patients being admitted to its own facilities in neighbouring towns. They had confirmed to Roy that some private work was going into these three areas. Local intelligence also suggested that it was the higher dependency patients which were being treated at these facilities. Given the current pattern of services in the area, there was therefore a gap in the market in terms of private facilities which could offer also 24 hour Residential Medical Officer
care together with intensive care facilities. It was partly to this sector of the market that the Trust felt it could address its future provision in terms of private care.

Measuring Local Demand For Private Healthcare

Not only did the Trust have to complete a competitor analysis, they also needed to establish 'need' and demand for any future provision. Once again, this appeared to prove easier than it had for NHS demand analysis which tended to be disease specific.

The U.S. International report had calculated total, private acute care bed need in the district using OPCS residential data; ACORN and CACI proprietary marking data. ACORN is a geo-demographic classification system which allows consumers to be classified into varying socio-economic types according to the sort of residential area in which they live. It is built up around the premise that people who live in similar neighbourhoods have similar behavioural, purchasing and lifestyle habits.

Whilst it is obviously easy to criticise the deterministic nature of this approach, part of the problem of health care market research is that there is very little other data available to inform decisions. The majority of the major retailers and some public agencies, utilise CACI/ACORN data. BUPA Hospital Ltd used the data base extensively. However, they were in the unique position of also being able to validate the data against their own claims experience as an insurance company, and, also against their admissions data as a hospital company.

The ACORN/CACI market research data is based on an annual attitude survey of 25,000 people aged 15 years and upwards. They are believed to be geographically representative of the UK population. One of the
key variables which the survey covers is the possession of private medical insurance. I confirmed to Roy how much BUPA had used CACI data when I had worked for them, and he commissioned a small study of the immediate area to ascertain information about Private Medical Insurance penetration. After extensive discussions with CACI the basis for the U.S. International assumptions were confirmed.

Together with his team, Roy was gradually building up a case to develop a private patients' facility. Some of the discussions I observed directly; his other activities he told me about on my visits. I also felt that my own role was becoming at times, more of a participant than non participant researcher/observer, because I felt that I wanted to share my knowledge of the industry with him in return for his co-operation.

Consultant Support and Demand

On the fourth visit, the project team believed that they had sufficient information regarding the current market, potential market share and competitors. However, they realised that the single most important factor determining the success of a private hospital is consultant support. It was from an estimate of this consultant support that the Trust knew it would have to calculate the viability and affordability of any capital investment. For this scheme, the activity generated by the consultants own private practice would be the equivalent of the Health Authority and GP Fundholder contracts for an ordinary NHS business case.

"They know who they work for, and who holds their contracts' explained the Chief Executive on one of his very rare, head round the corner, visits to Roy's office when I was there.
"They do that. Mind you, we want them to carry on the private work as long as its with us".
"I'll get John to find out how the land lies, and then we can talk to them one by one - I'm not having any questionnaires going around to them again".

With which the Chief Executive Officer withdrew. Roy knew enough about similar projects in Sheffield and Derby to know that it was generally accepted practice to 'survey' the consultants about their private practice preference. He was also aware that much informal communication had taken place between members of the management board and consultant users regarding their commitment to a private patients' facility within the hospital. The outcome has been supportive and positive, but nonetheless, he also knew that there still existed some feeling that such private facilities are regarded as being better if they are separate in some way from the main body of the NHS facility. This same attitude of 'separatism' also existed in terms of the management of the private patients' facility. It appeared that the main issue for the doctors was the availability of guaranteed theatre sessions. The plans for the new private wing did not include an additional theatre, and this made many of the doctors feel uncomfortable.

I spent a whole day at the hospital on my fifth visit, and felt that I would overdose on coffee and tea, because most of the day was spent either in the coffee lounge in the foyer, in the restaurant, or in the Chief Executive and Roy's offices where they talked to the doctors one by one, trying to obtain a verbal commitment to working in a new private patients' unit at the Trust. This day in fact was only an example of what Roy and other members of the management team had been working on for some time.
Working Out a Deal

As I observed Roy, I was intrigued by the perceptible change in his general demeanour and approach. He was getting more agitated by the apparently octopus like series of discussions, fact finding and co-ordination tasks which he had to complete. He also appeared solely responsible for the whole project. What I did not know at the time was that he had to report to the main Trust Board in just under two months from that day, with his costed proposals to support or not, as the case may be for an investment for a private patients' unit at the Trust.

The Director of Finance at the Trust was relatively new, he had taken over from the previous postholder, who had proved unable to cope with the extreme complexities of the new contracting system - having previously been an accountant in a telecommunication firm. The current director had healthcare experience from the NHS, but he was already over committed trying to reconcile contract activity into internal budgets and overall financial control. He suggested that Roy get specialised assistance from somebody with accounting experience from the private healthcare sector.

In the early 1980s the North American private healthcare companies had dominated the British market, given their relative demise in the early nineties, there were a number of talented freelance accountants on the market. Amanda was one such person who had worked on the world-wide HCA de-merger, but who had not ever worked in the NHS. She was however an investment accountant and was pleased to help the Trust.

I was informed by telephone by 'Young Mike' that a meeting had been secured between Eric, the Commercial Director of GBIH, and Roy, to
be held at the Trust and that I was invited to attend. I knew Eric from my days at BUPA, but had not seen him for five years or more.

Vignette 3.2

The two men were very similar in build, short, stocky and both northerners. This was obviously going to be a 'spade is a shovel' type of encounter.

"We haven't met before Eric, and I need to tell you that one of the reasons we went with U.S. International and not you in the first place was because I didn't get on with the chap before you' commenced Roy.

Nonplussed, Eric who was without doubt, the smoother of the two men, and had had extensive experience in negotiating commercial healthcare deals and had worked previously in the construction industry.

"We would like to do business with your Trust, Roy, as long as it's a win win situation. I cannot, now foresee any obstacles to us doing so", explained Eric

Next to him Roy had jotted down a range of issues which he wished to cover in his discussion with Eric. The two men did not have a formal agenda, each listened carefully to the other and had a very frank, and surprisingly detailed discussion.

Broad points of principle were covered first and the majority of the discussions revolved around operational feasibility of an independent company working within an NHS Trust. The meeting lasted nearly two hours and the two men parted company amicably with Eric

The Trust was faced with the problem that even if a private sector partner entered into a joint partnership arrangement with them, they were still required, under Treasury rules, to produce a publicly funded option for 'value for money' comparison. This requirement was to involve the Trust in considerably more work, because all the options needed to be assessed in terms of the risk return perspective.
Roy was very familiar with the requirements of the Option Appraisal guidelines and he organized a small brainstorming meeting between himself, the Director of Finance, and other members of the project, to consider the issues raised by GBIH and the options open to the Trust. The team were very clear about their key objective, namely to maximise the financial return to the Trust. Given this, the range of options revolved around a number of variables: the supply of capital available for development; ownership and leasehold arrangements; management arrangements; and project design and development for the scheme.

Given the variables, the group worked through a number of possible options. I had observed a number of these meetings at other Trusts, and once again was impressed by the speed, apparent competence and cohesion with which the project members addressed the task. They eventually refined a short list of five options:-

Option 1  Development and Management by County Infirmary using External Financing Limit (Public Capital) capital.

Option 2  Development and Management by County Infirmary using unconventional finance route.

Option 3  Development and funding by County Infirmary with either External Financing Limit or unconventional capital, but management of facility by private hospital company on a management contract basis.

Option 4  Joint venture with private hospital development company in terms of shared or partial capital input and/or profit share.

Option 5  Joint venture with private hospital development company in terms of scheme development and project design; management contract; lease payments by developer for site and purchase of services from the Trust. (Similar to previous U.S. International model).
Given the limited resources available to Roy and his team, the project group decided that Roy should proceed with the costing of three combinations of the options. These combinations were a mix of options one and two, three and four with five. For this work he needed to secure the assistance of the aforementioned Amanda as a project accountant.

Relating Financial Exposure To Market Risk

Like any other Trust constructing an investment appraisal, the hospital faced the same learning problems - they had to demonstrate and measure need, calculate affordability; estimate market risk, but in addition they had to link these requirements into a joint commercial venture. Furthermore they needed to develop a comparative assessment of the risk return ratio, based upon differential capital funding routes.

In order assess the risk return ratio of the various options, a baseline set of financial models had to be developed for comparative purposes. Amanda, the project accountant, provided guidance in this respect, and suggested three main principles:-

a) The County Infirmary fund and manage options should be used as the bench marks against which to test joint venture options.

b) The financial projections should be compared to the original U.S. International offer for relative comparison.

c) The financial projections could be used as a guideline for negotiating with joint partners in the future in terms of calculating the range of returns the Trust could tolerate. They
would also act as a benchmark in the future when the Trust tried to maximise its financial returns.

Roy understood that the range of assumptions used to calculate the financial models would be key to which direction the Trust chose. He quickly organized a fully costed set of design solutions for converting one of the existing wings in the hospital into the private patients' wing at an overall cost of £1.2 million.

Internally, and using the CACI/ACORN PMI penetration data, the Trust had agreed that its private patient demand would result in the need for 15 inpatient beds together with 5 day care bed. Importantly, they also agreed on an average length of stay of three days based on the intelligence from their consultants and discussions with GBIH.

Amanda offered the Trust the very distinct advantage of being familiar with the private sector and the basis upon which private hospitals charged their patients and the main insurance companies. In terms of the baseline models for comparative purposes, a number of important income assumptions were used, namely that the unit would operate on a range of occupancy rates from 45% to 65% bed occupancy, the daily bed fee would be set at £10-£20 below the local GBIH hospital and that all diagnostic test income would be charged at an average of £80 per case. In terms of income from theatre fees, these would be in accordance with the published schedule of fees from BUPA which most other insurers used in any case. The cost of capital for the baseline models was agreed at a 6 + 10% nominal interest rate in agreement with the Regional NHS ME Outpost Advisor.

When the first tranche of spreadsheets had been produced using these assumptions, the Trust had a calculated per patient per day income of £322. Then, very interestingly, Roy contacted his counterpart at the
GBIH hospital to check what their equivalent daily income was. Perhaps as a gesture of future goodwill, he told Roy quite freely this was currently £387. Thus, the Trust had, perhaps unknowingly, made an important tactical move, they were not only willing, but also able to undercut their local opposition in terms of overall charges, and hence income. This was to have repercussions for how GBIH reacted, using the Yorkshire maxim 'if you can't beat them, join them', GBIH promptly came back with a fully costed joint venture proposal for the Trust to consider.

Financial and Operational Basis of the Joint Venture

True to his word, Eric submitted a six sided proposal for an investment of nearly £1.2 million. In broad terms, GBIH proposed that they would operate a lease rental scheme with the Trust, but would own and manage the private patients business, remitting to the Trust income for the purchase of services in terms of theatre and diagnostic tests. Ward nursing staff would be employed directly by GBIH, as would support administration, managers and catering staff. Additional income to the Trust would be remitted via the rental agreement.

The detailed basis of their offer was for the purchase of services from the Trust in respect of theatre, x-ray, pathology and pharmacy services together with some ancillary and support services. The purchase of these services was based on a price to GBIH of 65% of the Trust price. Overall this would result in an income stream to the Trust ranging from £67,000 to £99,000 p.a. depending upon occupancy levels in return for very little financial exposure.

There were, though, a number of options available to both parties in terms of capital funding, and much of the decision making around this particular issue would be influenced by the regional outpost.
Consequently, the rental income in the proposal was left blank, representing as it did the area for negotiation between the Trust and GBIH, dependent upon who was to be the capital investor.

Roy, Amanda and the Director of Finance, considered the proposal in comparison to the predictions of the baseline models. It was obvious that any future stream of income to the Trust would, to a great extent, be dependent upon the basis for calculating expenditure or the overall cost of running the unit. The Trust would only be responsibility for these costs if the Trust was to operate the private patients' wing or, if indeed, a joint partner funded the project and the Trust had to bear the expenditure involved in a management contract.

Discussion about the technical basis of the costing approach was kept solely within the remit of the three previously mentioned people. I was particularly interested in how this small caucus of people were going to address expenditure, and at a later date how their assumptions were challenged.

Ward staffing was calculated on the basis of recruiting new, additional staff. Two ratios of nurses per patient were used; one as the basis for calculation, and one as a check factor. A check ratio was developed from industry norms based on NHS indicators, plus an uplift for private facilities. Indirect staffing expenditure was calculated on the basis of a 'bounty' payment to existing theatre and therapy/diagnostic staff. Under this arrangement payments of 80% and 50% respectively of income would be paid to staff. Managerial and administrative salaries and were also included.

However, in respect of non staff costs particularly for theatre and radiology, and total costs for other services, the expenditure was calculated at an extremely high 90% of received income. The basis for
this was two fold: no detailed, zero based costing system was in use at the Trust. Therefore, the project decided to use the basis of the U.S. International offer, which was based on purchasing items of service at price charged, plus 10%. There was considerable discussion around this point, as it was felt that all activity within theatre and radiology could have been done at marginal cost.

The group was able to anticipate the basis of the criticism of this approach namely, that rather than grossly inflating any surplus, the opposite had occurred, and the surplus had been grossly depressed. However, according to Roy's rationale, he felt far more comfortable adopting a cautious forecast.

At this point, Roy had available to him two comparative financial models: the Trust model and the GBIH model. The financial return in terms of cash flow were an income of £146,000 from the Trust model, in year three of operation, and £83,000 from GBIH. He had established the financial basis for his risk-return ratio.

The Final Decision

Until this point, the Chief Executive, had had very little detailed involvement in the basis of the proposed deal with GBIH. Roy met with him to discuss the qualitative issues surrounding the proposal and also took the advice of the Director of Medicine. The group knew that their criteria for success for the scheme revolved around three key issues.

Firstly, consultant support, particularly the commitment of consultants to working within any particular option, and what potential each option had to promote consultant loyalty. Secondly, operational feasibility, which included issues such as theatre availability, the need to avoid
problems for the Trust overall, and the general availability of staffing. Finally, the group identified two particular risk factors, specifically the use and opportunity cost of managerial time, and the degree of public and political exposure which a private patients' scheme would incur.

Given these criteria, three fundamental disadvantages of the GBIH proposal thus became apparent: consultants may well believe that their choice of private patient facilities has been reduced if GBIH were to dominate the market, furthermore, a competitor vacuum would be created which may be filled by a rival company, and most importantly for GBIH, they could be left with a redundant asset in the 'Independent Hospital'.

Roy now had available to him all the information he needed to finalise his proposals to the Trust board. He had one last round of negotiations remaining with GBIH regarding the future of their own 'Independent Hospital'. Observing discussions with the small project group in the Trust, it was apparent that Roy was one of the few able to summarise this final negotiating position. The issue revolved around who would be funding the capital needed for the private patients wing.

GBIH had indicated that, should they become the capital investor in the scheme, they would be seeking a contractual agreement with the Trust to make use of the facilities at its 'Independent Hospital' for, say, acute care of the elderly. On the other hand, should the Trust be the capital investor, the capital risk is then taken by themselves and there would be no basis upon which GBIH could ask for a contractual use of their asset. Added to which, should the Trust become the capital investor in the scheme, they would be in a stronger position to secure a higher rental agreement from GBIH.
Vignette 3.3

My last visit to the Trust coincided with the day on which the Trust Board papers had to be circulated. The air in Roy's office was blue with expletives. I felt very in the way, not even being able to break the atmosphere with the usual quip and bit of humour.

"I needed these figures to be perfect b......y days ago Amanda"! bawled Roy at an Amanda who was in no way going to tolerate such an approach.

"You got them - that work is worth a lot of money Roy, its not every day someone gives you a complete investment appraisal on a plate, its not my job to copy them as well".

"Val, get in here, - get these ready for binding" he continued, effectively ignoring Amanda.

"Honestly, its my neck on the block if this doesn't go through, no one else but me for the high jump".

"Mike, these capital costs better be right my boy, or else your neck's going to join mine".

It was one of the few occasions when I thought that it would be a good idea if someone smoked. Roy didn't smoke, but if he had done I was certain it would calm him down.

"Make the board happy, make the outpost happy, that's my job - then I'm off to Tenerife."

County Infirmary finally made the strategic decision to accept a lower financial return in return for capital funding from GBIH and, as they perceived it, more managerial support and a guaranteed income from the GBIH offer. This recommendation was submitted to the Board and accepted, as it was by the outpost. To an extent this was not surprising, given that when the Heads of Agreement were signed between GBIH and the County Infirmary there was to be no capital exposure for the public sector at all.
CASE STUDY 4

Total Site Redevelopment and Hospital Rationalisation

Context and Background

In February 1994 the Secretary of State for Health gave formal approval, for three of the oldest and most prestigious teaching hospitals in Britain to merge into one NHS Trust. Managerially, the merger meant that there would be one chief executive, one chairperson and a single trust Board of executive and non executive directors. Collectively the new Trust became known as The East River Hospital Trust, or colloquially 'The Rivers'.

However, common parlance amongst the clinical staff who worked at the three sites involved referring to the physical location of the hospitals. This approach represented much more than a short hand system, it reflects the deeply embedded relationship between the physical hospital building and its geographical location within the Capital.

Such locations, which in turn are more than just a place, convey whole concepts of community and history. To the various publics who live in these areas, the hospitals are their hospitals as a physical presence. Any attempt to convey that hospital care of the kind provided at them could equally well be provided elsewhere, and perhaps more conveniently, had in general been met with resistance and disbelief. To the public, healthcare is not a service - it is a tangible set of bricks and mortar, preferably in the form of a hospital.
The post of Chief Executive for this Trust was regarded as one of the top five chief executive jobs in the British Health services and amongst one of the highest paid, such that this job attracts a salary of about £30,000 more than its equivalent. During this period, from 1994-1995, the post was occupied by one of the most charismatic of chief executives, Tom, a man of immense managerial experience in health care, having previously been Regional General Manager. Given the experience of this man, it was not surprising that he wished to develop a far reaching strategic direction for the new Trust. His timing was opportune because the most comprehensive and far reaching review of hospital services in London had been completed and produced in the form of the 'Tomlinson Report'. Accompanying this report were a series of Independent Reviews of specialist services in London, under the aegis of 'The London Implementation Group', again referred to always by its acronym LIG.

The strategic direction of the new Trust was just as much influenced by the results of these reports as it was by the purchasing intentions of its local purchasers. Consequently, in order to study how this Trust was to implement the capital consequences of the internal market, the researcher also needed to understand the impact of the Tomlinson Report on the Trust. Therefore, within this case there are two levels of implementation and learning; firstly, as in the other cases, implementing the investment appraisal criteria of the new business case; secondly, learning how to deal with the ever larger scale rationalisation of acute health care services in London. The first report on London's hospitals was published in 1892. Nearly a hundred years later the Tomlinson Report on the future of health services in London was published, followed by the Government's response to this 'Making London Better', in February 1993.
Scale of Strategic Issues

In 1989-1990, around £2.9 billion, or 20% of English hospital and community health services expenditure was spent in London. An additional £226 million was spent on London’s Special Health Authorities. London contains about 15% of the English population and healthcare costs are on average 20% more than elsewhere. However, costs in the London inner city teaching hospitals, of which the Royal London Trust was one, were about 45% higher, at 1990 prices, than anywhere else in the country.

Five other key factors complicate the patterns of acute care in London. These are the relationship between inner and outer London hospitals such that no plans for inner London hospitals can be considered without regard to the impact on the outer London hospitals. Secondly, the impact of 20 years of RAVP has lead to a very rapid rate of decline in the number of beds than elsewhere nationally, albeit that the total numbers per 1,000 population per speciality are higher in London. Thirdly, primary and community health services have not developed either in terms of the range of services, or quality as they have elsewhere. London still has the highest number of single handed GP practices, often in highly unsuitable premises.

Fourthly, the provision of acute care is intimately linked with medical education and clinical research, one third of all medical students in the UK are trained in London. The SIFTR (Service Increment For Teaching and Research) of £130 million per year, is very important to those health commissions with teaching responsibilities. Inner London has historically acted as a national and international referral centre with 30 per cent of people being treated from outside the inner city.
Finally, London is a repository of very specialist expertise and equipment, particularly for oncology, cardiothoracic surgery, plastic surgery, neurosciences and renal medicine. However, this expertise is fragmented and sighted in a number of what are now, competing institutions. Thus LIG (The London Implementation Group) was established by the Management Executive to oversee the changes in London's healthcare and in particular to look at these major specialities.

Perception, Reality and Vested Interests

Some of the difficulties of defining a strategic direction for London's health service relate to problems of perception. For instance, there is an accepted belief that the clinical research conducted at many of the inner London teaching hospitals is amongst the best in the world. This argument has subsequently been used to justify and attract the numerous tertiary referrals which these hospitals receive. Moreover, it has been used to defend the continuing existence of the services and facilities no matter what their occupancy and throughput rates were. The main argument which has been used has been that of 'clinical critical mass', i.e. a sufficient number of staff with the right expertise to develop a centre of excellence.

However, it has been very difficult to obtain an accurate picture of just how good this clinical research and its subsequent application has in fact been. All the University medical schools were subject to the Universities Higher Funding Council Research Selectivity Exercise and not all received high ratings. Similarly, more formal postgraduate medical training opportunities are poorly organised in London. The decline in bed numbers in London has created problems in terms of sustaining traditional patterns of medical teaching. There are pockets of international expertise, but because the research effort is fragmented
across eighteen institutions, much of the results of individual research are poorly disseminated and effort is dissipated.

Problems of Strategic Forecasting

Trying to establish an accurate picture of reality has bedevilled all the enquiries into London's healthcare. A positive consequence of the internal market has been the systematic collection of contract data in terms of activity, case mix and costs. The Tomlinson Report was one of the first to make use of this data and to apply some performance targets and benchmarking to the known activity. Indeed, many of the plans for rationalisation of services within London, are based on very stringent (and some would say unobtainable) performance measures, particularly in terms of:

Day Case to Inpatient ratios
Length of Stay
Turnover Interval
More intensive use of capital assets particularly theatres and imaging equipment

Costing has been more difficult, not only in terms of costing procedures but also in respect of assessing the value of buildings and land for disposal. This is important because of the need to cost out a range of strategic options, but was difficult to do because of the variation in estates values in inner London over the past four years. Moreover, because of the recession and planning controls, many of these values were not realisable.
Broad Proposals for Rationalisation of Acute Services in London

The broad proposals for London are a radical rationalisation of both beds and hospitals. Currently, London has 41 hospitals with over 250 beds, and it is estimated that no more than 30 hospitals are required. Similarly, the tertiary specialist units are to be amalgamated and developed along the lines of a 'hub and spoke' model, such that outer London and the home counties District General Hospitals (DGHs) should have front line capacity in respect of tertiary specialities. An overall reduction of 5,000 beds would occur in the core specialities - a reduction of 25% over the next two decades. There would be a merger of key medical schools. One of the most important medical social and economic impacts would be the development of primary and community based healthcare, such that healthcare in London really would become primary care led. Some estimates recommend a £250 million primary and community care development programme to this end. This would in part be funded from the monies released from the rationalisation programmes. The overall capital monies required to achieve a London wide rationalisation is estimated to be in the order of £1.2 - £1.5 billion, releasing £80 million revenue on a recurring basis and about £100 million in capital on a non recurring basis.

Catalysts to Action

An immediate impact of this work was the Secretary of State's radical decision to close the Accident and Emergency Department at one of the three hospitals making up the new Trust from October 1994 and replace it with a minor injuries service. This decision catapulted the Trust into establishing a Capital Strategy Group to decide the long term strategic location of its services. Hence, once again, strategic direction was seen to be synonymous with capital investment strategy.
The closure of the A and E department at Site A put pressure on the Trust to address its rationalisation plans because of the issue of clinical co-dependencies. A major A and E centre is by necessity supported by a range of clinical specialties, which in part are 'fed' patients by the A and E department. These specialties also receive patients who are not emergencies, called elective patients. The range of patients is important if a hospital is a teaching hospital, because the medical students and doctors in training need to see a wide variety of cases. Thus, the closure was to serve to threaten the overall individual clinical viability of the hospital and its accreditation as a free standing teaching hospital.

Case Complexities

Case Four is the most complex of all the cases. This complexity stems from a number of factors: the sheer size of the Trust; the interrelatedness of services and people across three sites; the scale of the contingent factors impacting upon the Trust; and the historical and emotional importance of the three individual hospitals.

I was familiar with two of the sites, one of which has over 800 beds. The catchment area which it serves has traditionally been one of the poorest areas of London and today its socio-economic demography is influenced by its proximity to new commercial developments. However, its immediate population still rates high on deprivation indices. The area also has a very high first generation Indian sub continent population with some marked epidemiological gradients. The site has a well established medical school, and has the largest physical site of all three hospitals. It has very few new buildings and a very complicated functional relationships between departments. It is a major trauma centre, having a regional neurosciences unit with a Helicopter Emergency Medical Services Unit (HEMS).
The oldest of the three hospitals was founded in the 12th century and is the only medieval hospital in London with buildings on the original site. It is at the historical heart of medieval London, offering the equivalent of a medieval business campus, including trading, healthcare and education. Given this historical context, it is not surprising that the hospital has only a very small resident population to serve. However, it has long been the local A and E department for the City of London business people. The hospital does have a large national catchment area for renal medicine and oncology. Latterly it has also become internationally famous for its HIV/AIDS services, together with its pioneering work in endocrinology.

The third hospital is a single specialty cardio-thoracic hospital serving its immediate east and north east London population, together with a much larger catchment area spreading as far as Devon and Cornwall. It occupies the smallest physical site of all three hospitals, but is the most well maintained and has a very modern theatre suite. It has achieved international renown in respect of treating bronchial and associated laryngeal cancers. It also has a very advanced sleep laboratory for apnoea studies, and has the somewhat infamous reputation of employing the highest earning private practice cardiac specialists in the country.

I realised very soon that to understand this case was to understand history. One of the hospitals employs its own archivist, thus the buildings were not just hospitals they were, and are, also part of the national heritage.

In short, the Trust was faced with a complex series of strategic pressures, namely: the closure of A and E department and the consequences of this in terms of clinical viability and clinical co-dependency; proposed London wide rationalisation of specialist
services as a result of the LIG reviews to lead to a 'hub and spoke' model; and financial pressures as a result of the Trusts main purchasers wishing to move resources out of London teaching hospitals towards local acute hospitals. A further financial pressure was that the purchasers themselves were net losers because of changes in weighted capitation allocations.

**Project Management**

A major part of the strategic direction for the Trust in the future was seen to lie in capital investment as a consequence of service and site rationalisation. Thus a capital led solution was a reactive decision. To all intents and purposes, this overarching decision had already been made when I gained research access to the Trust. It had also already established a capital strategy group (CSG) which had a number of sub-divisions and was organized as a hierarchy. The CSG had ten standing members upon it, including representatives from each of the three hospitals, the medical director for the whole Trust, and was under the aegis of a project manager, who was not the Chief Executive.

The Trust also co-opted a large amount of external help and advice in the form of a three person management consultancy team; three health economists; a liaison person and representative from the Department of Health and two external accountants. Added to this external group was the Design Team, comprising a large architectural practice and equally large quantity surveying group.

The sub groups of the capital strategy group were organized around clinical specialties and were comprised of the clinical director for the specialty; their associated business manager and other representatives from each of the hospitals. They met at varying times, but on a frequency of every fortnight for a period of six months. The capital
strategy group met every Wednesday for nine months at 8.00 a.m. I attended the majority of CSG meetings, but could not attend all sub-group meetings and therefore chose two specialties to observe in detail, namely Neurosciences and Cardiac services. Undoubtedly, some of the finest clinicians in Britain were members of the CSG. They had excellent health planners and economists, and therefore conceptualisation of the problem came very early on in the Capital Investment process.

The Financial Viability of the Trust

Two problems dominated the whole project, firstly, how to demonstrate, prove and achieve affordability within any capital solutions. Secondly, how to plan for the rationalization of services on such a large scale in the internal market. The latter issue was problematic because any rationalization of services would lead to a displaced market share, which would need to be quantified and as a consequence was closely linked to the first problem of affordability.

The total amount of the Trust's operating income gives an indication of the size of it as a health business. In 1995, it had an income of £177.6 million with capital charges of £15.5 million which helped to contribute towards its operating costs of £191 million hence given the Trust a deficit of £13.4 million. Hence the need for the Trust to reduce its cost base, part of which was made up from having to support three different sites.
To my mind Geoff was one of the coolest financial managers I had ever met. He reported directly to the Trust Director of Finance. I was attending the third of the CSG meetings where the 'true' financial position of the Trust was being explained to all present. Geoff was being supported in his presentation by a man on secondment from DoH.

"No change is not an option for this Trust", began Adrian,

"The financial situation here is dramatic and as such will direct the strategy which is finally chosen".

"I must support Adrian's analysis of the situation", continued Geoff.

"We are carrying our £13.4 million operating deficit, added to which I think we can add a five year loss of £17 million in reduced market share, if we are still pressed for more time reductions by the Health Authorities, then that could be another £7-9 million".

"Overall, the worst case scenario is a deficit of £39 million", and that is why no change is not an option."

Another voice was added to this duo, the strangely calm voice of one of the quantity surveyors who were attending the capital strategy group. Strangely calm in the sense that no figures or amount of money seemed to phase him:

"I must add to that figure of £39 million the estimated £87 million in backlog maintenance at these two sites.

The Trust's shortfall had come about partly because of changes in purchasers intentions and their removal of contract income and placing of contracts with other London and suburban Trusts. Added to which the Trust had had to respond to a purchaser desire for a 20% reduction in unit prices. Further reductions in the amount of contracts to be placed with the Trust by purchasers was also expected particularly because the inner London purchasers had to transfer monies from the acute sector towards primary and community care services.
The CSG moved on swiftly to outline some high level options which needed to be tested by way of an option appraisal. Draft outlines of these options had already been prepared and resulted in shortlisted options which were:

i a single site option to move all acute services to the largest physical site (Site A);

ii a dual site option, to move all inpatient services to Site A, but keep the city centre hospital (Site B) as a day, outpatient and therapy centre;

iii the alternative dual site option, wherein there would be no Accident & Emergency, general medical or surgical presence at Site B, but it would have its share of specialist services, particularly renal, paediatric and oncology services.

The task of the team was made very clear, each member had to communicate with their relevant sub-group in order to ascertain their views on the three options.

Capital Planning at a Clinical Sub Group: Neurosciences

Neurosciences and cardiac services were spread across two and three of the sites respectively. Each was headed up by a clinical director and a business manager. The capital investment project for these two specialties had a triple impact; firstly they would, as clinical specialties, be subject to an individual affordability test, because they were such large specialties. Secondly, they also made up two of the six LIG specialties and so were subject to pressure for a London wide rationalization of services. Thirdly, because they were spread across three sites, they were also subject to the prospect of a Trust wide rationalization.
It took me some considerable time to understand the above complexities and interrelationships. I had to complete a good deal of reading of all the relevant LIG reports and internal reports from the Trust before I felt able to understand the content of the sub-group meetings.

The first sub-group meeting which I attended was the Neurosciences Group. It was also the first time I experienced some difficulty in choosing the correct title of address for a clinician. This was because one of the members of the group was not only a doctor, but a professor and also a knight, hence I settled on the correct term 'Professor, Sir'. I was to be further surprised by the very advanced and sophisticated level of understanding which this group of clinicians had in respect of the situation facing them. Ignorance would never be an excuse for failure of action for this group.

The team members were, however, more familiar with the demands of the London wide rationalization and trust rationalization than the issues of affordability. What as a team they had been asked to do, was to 'size' their future service and to state how and where this future service would fit into the three main options under consideration. The team was familiar with the London wide rationalization because they were one of the largest providers of neuroscience services in the Capital. Consequently much of what was written about in the LIG reviews had come from these very people.

The first meeting of the group began with an overview of the London wide recommendations which covered neurosciences. These recommendations emphasized, as with all the other specialties, the development of a 'hub and spoke' model of care, wherein the 'hub' was a tertiary referral centre like the Trust currently was. The 'spokes' on the other hand were the local DGHs, which were being encouraged to
grow their expertise. The consequences of this for the Trust would be that it would loose its more general work, except for its own local population. The clinicians interpreted this as a downgrading of their service.

The most far reaching comments within the LIG review did however refer to the future continuation of neurosurgery at Site B, which, it was suggested, should cease, and that if services were to remain there they should only include neurology. In short, it was recommended that these services should all be located on one site at Site A, particularly because of its position as a major trauma centre. What was more, it was suggested that all neurosurgery should be carried out here, and that the catchment area for such a service would be 2 million people.

The manner in which these recommendations were received by the team greatly surprised me in that no objections were raised. Discussion continued about the problem of developing adequate neurology services in the DGHs because of lack of consultants.

It was at the second meeting of this sub-group that the term 'The Neurosciences Institute' was floated, and so the idea of a leviathan was born. At all subsequent meetings this was the collective term used for future reference to any neurosciences services, which by this time it had been agreed in the sub-group, would be located at Site B.

The clinical subgroup had next to consider the local rationalization. In fact, a considerable amount of discussion had been held between the two units (at Site A and Site B) before the working group had set up. Therefore many of the issues had been talked through. Much of the discussion within the group though, was how to convince 'the management' that the best interests of neurosciences as the clinicians saw them, should be promoted.
The groundwork and general agreement for neurosciences was settled within six weeks. Many of the fortnightly meetings of the other subgroups reiterated previous discussions I had heard at the neurosciences group. In effect, continuation of the neurosciences work was somewhat held up until the other sub-groups had reported and the main CSG had made progress on costing approaches and calculating affordability.

Cardiac Services

The cardiac services sub group was composed of an equally eminent group of physicians and surgeons. It, too, had been furnished by the CSG with summaries of the LIG reviews on cardiac services and as with neurosciences, the same group of people had actually contributed towards the original reviews in the first instance. Unlike the previous group though, the findings were less clear cut for cardiac services.Whilst the hub and spoke model was supported, it was believed that two 'hubs' would be needed for the North East Thames area. In addition, the consultants in this group had a very clear understanding of the degree of local competition.

The meetings of this group were not solely reliant upon the views of its members. A number of the doctors had sought the advice of, and commissioned separate research from, the British Heart Foundation and the British Cardiac Society in order to assist them in planning a future service provision.

The single issue which dominated this group was not the survival or otherwise of Site B, but ensuring that some national and international specialist skills and facilities were kept in tact at Site C. What made this particular hospital special to those who worked in it, was the close juxtaposition of not only cardiac work, but also general thoracic and
lung work. Hence it had the ability to treat the whole of the respiratory and cardiovascular system. Like Sites B and C had some very small, but highly specialized services which appeared to warrant a disproportionate amount of time being spent in considering them. Such services were the Regional Cystic Fibrosis Unit, and an internationally known sleep centre where neurophysiological and cardiology activity could be monitored.

This particular group was also under additional pressure from the CSG which wanted to see at least one of the three sites within the Trust closed and the assets sold as an interim measure and prior to the overall long term solution for the Trust. Given its location, it was highly unlikely that this would be the Site B. Nor were any members of the CSG willing to suggest at this stage in the planning that Site B should be permanently closed. These points were put to the clinical subgroup by the strategic planner, Robert, and the financial planner Geoff. The choice was therefore somewhat limited to the interim closure of the Site C.

Again, after at least six weeks discussing the same points once more, the sub-group recommended to the CSG that the future of cardiac services should be at Site A. The rationale for this was not just because of clinical co-location, but also because of the availability of full diagnostic back up, extended ITU and above all, sufficient junior doctors to provide cover and care for the patients.

They were also willing to leave the Site C for good and split their services between Sites A and B pending the development of the new Unit - which they insisted would be called a Cardiotheracic Institute.
Predicting Demand and Service Need

As the sub-group were meeting, the CSG was running concurrently and had reached the point where demand projections for future services were needed. This was in mid May 1994. The demand projection work fell to the health economists and two management consultants, who were working with the Trust. These four people had a very well developed approach to demand forecasting which they had been developing over the previous three and a half years. The approach had been developed within the NHS on other CIA business cases. However, no one on the CSG had utilised the approach before. Secondly, no one group in the UK to date, had taken on board such a large and complex investment appraisal within the internal market.

Additional complexities were that the LIG planning assumptions had to be incorporated into any planning model which was used. Furthermore, because of the mix of ordinary secondary services, and tertiary acute services at the Trust, it would be necessary to use a variety of population bases to establish need, then demand, and lastly, incidence of hospitalisation. To a certain extent, this was possible, given the strong historical patterns of referrals to the Trust, and these could be plotted on a map using post code analysis.

The real problem was that even in early 1994 the full 1991 census data for the whole of Britain was not available, and it was going to be necessary to use OPCS small area statistics to measure population flows. As if these issues were not sufficiently problematic, because of the interlinkages of the hospitals, any change in the market share of one would impact upon another. Hence, the closure of any of the Trust's constituent hospitals would affect the remaining ones. What was more, there would be some 'displaced' activity, i.e. it could not be assumed that GP fundholders and health authorities would continue to refer
patients and place contracts with the Trust if they were to close one or more of their sites.

Sophie and Nigel were generally regarded as two of the top health planners and economists working within London, and had been selected specifically by the Chief Executive of the Trust for this project. I was particularly interested in listening to their approach, and hearing the 'secrets of the trade', particularly since by this time in 1994 I had observed the approaches of the three other cases. Sophie and Nigel addressed the CSG complete with well produced handouts and overheads.

"The approach which we propose to adopt for the planning assumptions will involve the following" commanded Sophie, "We shall complete an analysis of current activity data by all purchasers, specialties and provider site; secondly, we will assess the potential changes in market share, again by purchaser and specialty, and finally, we will evaluate current performance and identify the scope for change".

I was impressed by her command of the audience, particularly her ability to talk to such an impressive group of physicians and public servants, as if she were Mary Poppins and they her charges.

In the audience was Professor, Sir Martin Cherry one of Britain's leading immunologists and experts on AIDS.

"Just how do you intend to assess potential changes in market share? Furthermore, what exactly do you mean by evaluate current performance?" he asked.

Sophie allowed Nigel to answer this question.
"Market share will be assessed by studying the purchasing intentions of all the purchasers. We shall ask them all to complete a questionnaire to project their estimated demand for the Trust’s services, by specialty, over the next 5 and 10 years. This will be done on the basis of known epidemiological and demographic pressures, and taking into account their expected weighted capitation position and developments in primary and community care.

"We shall also ask them to specify which provider units would receive any displaced work from the Trust, added to which we need to know if changes in contract activity away from the Trust would be because their purchasing is price or site specific."

Not a hope, I thought to myself. In order for the health authorities to answer those questions, they would require very advanced statistical modelling capacity and a knowledge of their weighted capitation ten years hence.

There was a general stunned silence within the CSG. The rationality and confidence with which the two economists expressed their plans was convincing.

"I see, yes that sounds plausible, replied Sir Martin, and my question about performance?"

The remainder of the meeting was occupied by an explanation of how performance would be calculated. It was proposed to take specialty specific performance targets based on the percentage of day case rates in all specialties and the average length of stay for inpatient elective and emergency activity. The key comparators for performance were to be
derived from the benchmark laid down by the LIG specialty groups and 'productivity' targets which had previously been set by the former North East Thames RHA. The meeting ended with the explanation that the timetable for all the demand projections would take at least 4 - 6 months - up until Christmas of 1995.

During this four month period I was able to observe the CSG meetings as usual, but these meetings were only presented with the summaries of the demand forecasting activities. I needed to observe and interview the Trust's finance and planning staff together with the economists to understand the detail which went into the work. This I was able to do, and was proved wrong in respect of the response from the purchasing authorities with regards to the Trusts request for information about their future purchasing commitments. In fact, fourteen responses were received, including responses from all the immediate and major purchasers.

**Linking Demand Forecasting to Financial Viability**

The demand forecasting model which was used for this case was the most sophisticated I had ever encountered. It was based upon a complicated equation of epidemiologically based need (demography, weighted SMRs and relevant deprivation indicators); estimated future contract activity (derived from the Health Authorities) and the application of the aforementioned performance targets.

This first stage of the equation gave a projected baseline demand projection for the years 2000-2005. However, the planning team also had to take account of the issue of displaced activity, given that the three hospitals were going to rationalise down to one or two remaining sites.
All the mathematical work for the demand forecasting was done using computer based models. The amount of numeric data was so great that it could not effectively be manipulated on Lotus 123, therefore a larger statistical package called SAS had to be used for the analysis, and then down loaded to Lotus 123 for summary and presentational purposes. Nobody at the Trust had the necessary skills to complete this modelling and the planning group sub-contracted the analysis to two econometricians and statisticians who acted as freelance analysers.

Displaced potential activity was modelled using a GIS (Geographical Information System). In 1994, the GIS market was dominated by a company called CACI. CACI had established themselves in the UK from the United States and were able to 'map' any type of data, correlating it with the latest census data down to electoral ward, and even postcode level.

The use of CACI by an NHS Trust at that point in time was novel and the work which they did with the Trust set a precedent for the future with many subsequent Trusts 'adopting' the Rivers' Hospitals technique for demand projection. Using the CACI maps, the team were able to draw travel time isochrones around the three different sites and model what the potential effect would be on these travel times if one of the sites were to be removed. The team also wanted to do some flow modelling to create an even more sophisticated view of the future, but were unable to find any people or organizations with the skills to achieve this.

Calculating Affordability and the Derivations of Price

Given the experience of the planning group within this case, once the various demand scenarios had been established, they knew enough
about the new Business Case procedures to calculate the affordability of any new scheme.

This knowledge had been developed in a number of ways mainly through informal discussions with NHS colleagues; the acquired knowledge of the two economists who had worked on a number of investment appraisal projects. Some of the team had attended commercial planning seminars run by large accounting and strategic planning firms. None had attended seminars organized by the DoH or NHS Management Executive because there hadn't been any.

The translation of demand projections into an affordability equation takes place by converting demand into a physical expression of the number of departments and bed numbers needed to fulfil this demand. The 'supply' side of the equation is of course a function of throughput and the overall physical capacity of a building. None of these activities, time consuming and complicated as they are, were new. However, what was new, was the need to calculate the overall affordability of the 'supply', or the cost of the new beds, departments and hospital to both the purchaser and the Trust itself.

In Britain, at that time, no group had attempted to estimate affordability for such a large capital investment. The majority of Trusts, in reality had just about mastered the techniques of calculating the prices for their services. The whole meaning of affordability was very poorly understood both at a practical and conceptual level. I had presented a paper at a conference concerning how to define affordability, which generated interest not least because others were grappling with similar problems of definition and calculation around the country.
There are two meanings for affordability, first to the Trust as provider and secondly to the purchaser. All capital investments need a 'required income' to sustain the investment; this required income is achieved by contracts for services.

The required income for a project can be defined as the operating costs of the investment plus the capital charge or trust equivalent charges, defined as depreciation plus a target (6%) return on the assets employed. As a result of the capital accounting mechanisms which have been introduced it is clear that the depreciation accords with a pre-defined set of asset lives and that the target rate of return is determined by central government. Consequently, the capital charges element of the investment are fixed and they vary only in as much as the overall capital cost of the scheme changes. Hence, a lower overall capital cost to the scheme means a lower overall capital charge element to be incorporated into the income requirements.

Therefore, in relation to income requirements, the provider can control the operating cost element of the investment and to a certain extent the activity levels which will influence unit price. In this respect, price becomes a very important variable when considering affordability. Providers are required to recover full operating costs and their capital charges element within their pricing structure to purchasers.

Affordability to the purchaser can be defined as their desire and ability to pay the prices levied by the providers as a result of an investment. The Capital Investment Manual requires that all providers have gained explicit purchaser support for their investment. It is helpful for us to consider the concepts of desirability to pay and ability to pay from the purchasers viewpoint.
The ability of a purchaser to pay is a direct function of the resources available to it and secondly of how they wish to spend those resources. Macro resource allocation to purchasers is determined by weighted capitation which is in itself subject to medium term variation, if not volatility.

The way in which affordability seemed to be work meant that the Trust was in a 'chicken and egg' situation. On the one hand they needed to secure purchaser agreement to their investment proposals; but on the other hand the purchasers could not give this commitment until they knew the unit and aggregate prices for the services which they would buy.

The Trust's planning group tackled the problem in a very interesting way: they devised a seminar to which other people were invited who had an interest in exploring the techniques of calculating affordability, but who were uninvolved with the project. After a very lively debate three broad areas of importance were described; firstly there had to be a better understanding of the Trust's cost structure, in particular what were the expenditure or cost 'drivers'; secondly, more work needed to be done in terms of distinguishing between fixed and variable costs. There also needed to be an understanding of how the Trust had set its previous prices, because these were what the purchasers would compare potentially new prices to.

The approach to developing the costing methodology was so important that the planning team were required to meet with the Regional Outpost Manager of the NHS Management Executive. The importance lay in the relationship between costing decisions and how these eventually defined the pattern of future prices, then in turn how these price signal influenced health provision in the internal market.
The CSG group, together with the Regional Output representative finally decided upon a 'cost-driver' approach to establishing the costs of future sites for the three hospitals. However, the cost-driver approach was also complimented by a zero-based budgeting approach for high spending departments. Both these methods were then compared to available benchmarking data.

The beauty of the cost-driver approach was such that it produced a series of weightings which could be applied to any of the costs of services in any of the three options under consideration. The 'driver' element was derived from calculating the change to the current cost base resulting from changes in: activity - occupied bed days; use of theatres and diagnostic services, floor areas and ward sizes.

One of the most useful benchmarking tools came from the CIPFA database which allowed the team to compare the Trust's costs with other hospitals, although very few had the same unusual profile as the Trust itself.

This approach was certainly the most sophisticated of all the cases I had been researching. This sophistication owed much to the fact that by 1994/95 the managers in the NHS knew the rules of the game, even if it had meant inventing them themselves. Therefore, more of their energy and expertise could be directed towards perfecting some of the technical requirements for the business cases. Added to this was the fact that the consultants whom they used had amassed a huge amount of experience and comparative knowledge by being involved in so many cases.

When the costing had been completed, the CSG were in a position to compare the capital and revenue costs and prices effect of rationalising services on one or two sites.
The Final Decision

The presentation of the draft Business Case was to a meeting of members of the CS and members of all the Joint Clinical Working Groups who had contributed to the study. The production of the forty page summary had been done by the planning group, but was accompanied by an eight volume set of appendices. Interestingly, it was the only journal meeting at which I had ever seen the Chief Executive.

There were two final options. First, the single site option, whereupon all the facilities of the Site C and those at Site B would re-locate to Site A. Secondly, the Dual Site option which would retain the Site A, with Site C facilities relocating to it. Site B would remain as a day care and outpatient centre.

Two important political concessions had also been made to attract the support of the influential cardio thoracic clinicians and the influential neurosciences doctors. The concession being that each of these two specialties would have their 'Institutes' based at Site B. Indeed, the planned scale and size of the Cardiac Institute would make it one of the largest in Europe. It seemed though a small price to pay for the closure of Site C, which would not survive under either of the options.

The overall difference in affordability between the dual and single site options was perhaps less than expected. The single site option returning a small surplus of £0.3m when income required was matched against income available. In the case of the dual site option this became a deficit of £5.3m. It was estimated though that the long term effect of only funding one site would lead to greater savings over a fifty year period, but the groups were unable to quantify this. What the groups
were also unable to do was to place a capital receipt upon the land sale on of the sites, because of its historical value and political significance.

The final decision was chosen as the single site option at Site A. The choice was based on finance, but also very much on the location of Site A in a densely populated and highly deprived area. Physically, there was more room for expansion and the development of the two major institutes. However, the future of Site B was then and still is uncertain.
CHAPTER EIGHT

DATA ANALYSIS AND RESULTS

Introduction

The data has been analysed in three stages using the two main sources of empirical evidence for the research, namely, the four case studies and thirteen unstructured interviews. The three stages are identified below:

Stage 1:

1.1 Manual open coding of concepts from case studies.

1.2 Clustering of concepts into categories using dendogram (Krippendorff, 1980).

1.3 Axial coding of categories (Strauss & Corbin, 1990).

1.4 Interpretation of substantive issues.

1.5 Process observation.

1.6 Decision and Event charting (Stiegelbauer, Goldstein & Huling, 1982 (modified); Werner & Schoepfle, 1987 (modified)).

Stage 2:

2.1 Computerised textual analysis of interviews using QSR. NUD.IST: coding and indexing.

2.2 Text searching and hypothesising between codes.

Stage 3:

3.1 Development of selective and conditional matrices for cases and interview (Strauss & Corbin, 1990).
The analysis has used 'in case' and 'between case' comparisons. For instance, Stages 1.1 - 1.3 (above) only had meaning if completed on a cross-case basis, whereas for Stages 1.4 - 1.6 it was more appropriate to complete this analysis on a 'case-per-case' basis. The whole of the analysis has been designed to be complimentary to a Grounded Theory approach (Glaser & Strauss, 1969), consequently the analytical steps outlined in Glaser and Corbin (1990) have been closely followed and some of their explanations have been partially replicated here.

The suitability of the QSR NUD.IST programme for this type of analysis has been explained in Chapter Six and the two methods (case study open coding and computerised textual analysis of interviews) have been very complimentary to the extent that it has been possible to 'collapse' Stage 3 and treat the case study data and the interviews as one group of empirical evidence.

Apart from the Grounded Theory structure, other approaches to analytical abstraction have been used implicitly, if not shown here explicitly, particularly Carley's 'Ladder of Analytical Abstraction' which moves from summarising data, to aggregation and then on to developing propositions for an explanatory framework (Carley, 1993).

For each stage of the analysis there is a table, figure or diagram and accompanying text. As far as possible the two should be read together in order to understand the logic and meaning of the coding and its subsequent aggregation.
8.1 Stage 1

8.1.1 Open coding of concepts from case studies

Figure 8.1 (column 3) shows the twenty explanatory concepts derived from the case studies which help to explain how the implementation of public policy occurs. The associated text relating to these codes is derived from the case studies. As is the case in interpretative research, it is always difficult to free the mind of the influences of the established literature and ones' overall working hypothesis. As far as was practicable the cases were hand coded solely within the remit of the description in them and without conscious reference to the literature.

Above all else, the main influence upon the selection of these twenty codes was the four-and-half-years of case observation. As such they are deeply related to Stage 1.5 the Process Observation, whilst also reflecting Stage 1.4 the Substantive Issues.
Figure 8.1: Open coding of concepts from case studies

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERPRETATIVE COMMENT</td>
<td>SUBSTANTIVE ISSUES</td>
<td>EXPLANATORY CODING CONCEPTS</td>
</tr>
<tr>
<td>1 State of ignorance</td>
<td>1 Business independence</td>
<td>1 Capacity</td>
</tr>
<tr>
<td>2 Design &amp; build solutions</td>
<td>2 Internal competition</td>
<td>2 Stakeholders &amp; external links - communication with</td>
</tr>
<tr>
<td>3 Demand forecasting / need assessment</td>
<td>3 Proving affordability</td>
<td>3 Historical antecedents</td>
</tr>
<tr>
<td>4 Sufficient knowledge base to question</td>
<td>4 Demand assessment</td>
<td>4 Catalyst to action</td>
</tr>
<tr>
<td>5 Capital planning changes &amp; new bus. cases</td>
<td>5 Data gathering / data handling</td>
<td>5 Structure bureaucracy</td>
</tr>
<tr>
<td>6 Project processes</td>
<td>6 Need assessment</td>
<td>6 Timing / opportunities / topical</td>
</tr>
<tr>
<td>7 Pricing</td>
<td>7 The definition and role of units of activity</td>
<td>7 Project teams</td>
</tr>
<tr>
<td>8 Peripheral rules, Contextual validation</td>
<td>8 Role of centre &amp; type of advice / guidance</td>
<td>8 Bureaucratic obedience</td>
</tr>
<tr>
<td>9 Institutional constraints / enhancers</td>
<td>9 Pricing, Costing</td>
<td>9 Expertise</td>
</tr>
<tr>
<td>10 Microcomputing</td>
<td>10 Market risk</td>
<td>10 Strategic translation</td>
</tr>
<tr>
<td>11 Pan metropolitan acute restructuring &amp; fallout consequences</td>
<td>11 Competitor analysis</td>
<td>11 Recording</td>
</tr>
<tr>
<td>12 Contemporary trends / knowledge / changing models of care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Externalisation of markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Development of qualitative criteria c.f. option appraisal guidance - speciality specific</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Clinical / managerial relationships</td>
<td>12 Market share - market differentiation</td>
<td>15 Predictive ability / forecasting</td>
</tr>
<tr>
<td>16 Joint ventures</td>
<td>13 Strategic uncertainty / technology prediction</td>
<td>16 Key actors / teachers / knowledge diffuser</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14 Business viability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 Informed purchasing, degree of sophistication of purchasing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16 Entrepreneur / entrepreneurial skills, Commercialism</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17 Strategic planning / strategic definition</td>
</tr>
</tbody>
</table>

NO ADDITIONAL CATEGORIES FOR CASE FOUR
8.1.2 Clustering of concepts

Figure 8.1.2 details how the twenty codes derived from the case studies were clustered into the seven, key, analytical categories around which the first part of the analysis and theory building was constructed. Chapter Nine interprets the results from the taped interview and these were then coded using QSR NUD.IST. The clustering of the coding from the interviews and the subsequent integration of the codes from the case studies are presented in Figure 9.1 and 9.2 (Chapter Nine).
Figure 8.1.2: Dendograph of Concept Clusters

Opportunity
Catalyst
Initiation
Historical Antecedent

Project Teams
Co-ordination and Communication

Discretion
Bureaucratic Obedience

Recording Information
Pooling & Sharing Knowledge

Comparing Information
Intuition

Practice
Diffusion

Complexity

Capacity
Expertise

Teachers
Diffusers

Operationalising Tasks
Routinisation

Prediction
Forecasting

Peripheral Rules
Stakeholders
8.1.3 Axial coding of the categories

Axial coding of the seven categories was carried out in strict accordance with Strauss and Corbin's (1990) coding procedures for grounded theory development as shown here by my diagrammatic representation.

\[
\begin{align*}
\text{Open Coding} & \quad \text{Axial Coding} \\
\text{Category} & \quad (A) \text{ Causal condition} \rightarrow (B) \text{ Phenomenon} \\
& \quad (C) \text{ Context of data} \rightarrow (D) \text{ Intervening conditions} \\
& \quad (E) \text{ Action/Interaction strategies}
\end{align*}
\]

Strauss and Corbin (1990) refer to this sequential flow as a 'miniframe' or 'logic diagram' (p. 11). Logic diagrams have been constructed for all six categories derived from the case studies and are shown in Figures 8.1.3.1-8.1.3.6.

The sequential flow A-E in the logic diagrams is based upon Strauss and Corbin's Paradigm Model (p. 99). In order to understand the paradigm model it is helpful to paraphrase their explanation of the six stages (A-F).
Open coding: Properties are the attributes and characteristics of a category. Dimensions are a continuum for the above properties, more often indicating the degree or intensity of a property.

Axial coding:
(a) Causal conditions: the antecedent conditions (such as when, while, since, because, due to) or event, or incident preceding a phenomenon.

(b) Phenomenon: the category under consideration.

(c) Context: the specific causes or events, or conditions pertaining to a phenomenon and its subsequent 'management'.

(d) Intervening condition: issues and conditions constraining or facilitating action about and around a phenomenon.

(e) Action/Interaction strategies: purposeful action taken in respect of managing, handling or carrying out a phenomenon.

In the Paradigm Model, there is a sixth stage 'F' - consequences which refers to the management of a phenomenon and its final outcomes. This stage of axial coding has been omitted from the case study analysis but included in the joint case/interview analysis within the Selective and Conditional Coding.

Each of the seven categories and their associated logic diagrams will now be considered in turn.
8.1.3.1. **Timing**

There is a strong temporal element to the implementation of policy. This is demonstrated in three ways, (i) the initiation of action, (ii) the maintenance of action or the continuation of implementation and (iii) the role of antecedent events. Added to what might be called these 'boundary' elements of time, during the actual processes of implementation, timing plays a very important role particularly in respect of either facilitating or constraining processes.

It is likely that the way in which timing behaves as a variable within implementation is dependent upon the nature of the policy. If it is a piece of mandated policy which requires immediate action, then timing will become subordinated to other factors. On the other hand, within the four case studies presented in this research, each group of managers responded in their own time to the requirements of the new investment appraisal guidelines only when they needed to consider a new investment.

Thus, in Case 1, timing acted as both a constraint and an opportunity. The peculiar juxtaposition of a change to the internal market, the boom in land prices, the desire for Sainsbury's to expand and the alteration to the capital accounting system, all resulted in a catalyst to action to redevelop the Clarence Centre.

Similarly, in Case 4, the Secretary of State's decision to close the Accident and Emergency Department galvanised the Trust into developing its ambitious business case. Case Study 2, on the other hand, illustrates the more transitional elements of timing. This Trust had already developed skills in doing business cases as evidenced by
the Interview with 'Stella', who referred on numerous occasions to their case for Oncology services. Consequently, when it came to doing the business case for Pathology, we have evidence of the gradual embeddedness of understanding and skill development. This is instanced by the team's understanding of 'affordability' and hence their more sophisticated approach towards trying to price pathology tests.

As Figure 8.1.3.1 shows, three dimensions for timing can be discerned, namely, Initiation, Transition and Continuation. However, the degree to which these dimensions are realised is dependent upon the degree of preparedness to exploit an opportunity and the state of the organisation's overall competence to deal with the requirements of implementation. In each of the four cases, the opportunities were exploited but there was at the time insufficient competence to be fully independent and hence experts were used to develop and aid learning.
Figure 8.1.3.1: Case Categories (TIMING): Logic Diagram

OPEN CODING

**TIMING**

<table>
<thead>
<tr>
<th>Properties</th>
</tr>
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<tbody>
<tr>
<td>Immediate</td>
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<tr>
<td>Long-term</td>
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<tr>
<td>Progressive</td>
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<tr>
<td>Retrospective</td>
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<table>
<thead>
<tr>
<th>Dimensions</th>
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<tbody>
<tr>
<td>Multi-dimensional, covering</td>
</tr>
<tr>
<td>- Initiation</td>
</tr>
<tr>
<td>- Transition</td>
</tr>
<tr>
<td>- Continuation</td>
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</tbody>
</table>

AXIAL CODING

<table>
<thead>
<tr>
<th>(A) Causal Condition</th>
<th>(B) Phenomenon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactionary event</td>
<td>Timing</td>
</tr>
<tr>
<td>Practice and</td>
<td></td>
</tr>
<tr>
<td>gradual embeddedness</td>
<td></td>
</tr>
<tr>
<td>Routine activity, continuing and sustained ability</td>
<td></td>
</tr>
<tr>
<td>Historical antecedents</td>
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<tr>
<td>Unpredictability of the future</td>
<td></td>
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<tr>
<td>Time as a resource</td>
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</table>

<table>
<thead>
<tr>
<th>(C) Context of Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different conditions define four broad temporal elements within which implementation action occurs. Under initiation conditions, action is triggered as a response. Under transitional conditions, the action is maintained with momentum. Under continuation conditions activity is sustained. Antecedent and subsequent conditions impact upon action.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(D) Intervening Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunism</td>
</tr>
<tr>
<td>Degree of preparedness</td>
</tr>
<tr>
<td>Serendipity</td>
</tr>
<tr>
<td>Awareness of history</td>
</tr>
<tr>
<td>Forecasting ability</td>
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</table>

<table>
<thead>
<tr>
<th>(E) Action/Interaction Strategies for Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop awareness</td>
</tr>
<tr>
<td>Plan</td>
</tr>
<tr>
<td>Have a capacity for response</td>
</tr>
<tr>
<td>Record history</td>
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<tr>
<td>Record practice</td>
</tr>
</tbody>
</table>
8.1.3.2  Structure

An explanation of structure is fundamental to any study of organisations. Within the context of this implementation research, structure refers to the overall pattern of communication, control and co-ordination. However, because this is a study in public policy implementation, the overarching structural pattern is that of a bureaucracy. Added to which there is ample evidence of Lipskean discretion as a key process operating within these bureaucracies.

There is, however, another pre-ordained structural pattern at work, and that is the use of project teams as the planning units. In part, this is related to the bureaucratic requirements of the capital investment manual and associated CAPRICODE guidance that options for investment are appraised using a project team approach.

There is a significant variation in the amount of discretion exhibited within the four cases. Case 1 exhibits less than Case 4; this might be explained by the difference in size of the projects and the lines of accountability for each. Case 1 is small and Roy was individually accountable for the project. Case 4 is very large, communication was diffuse and there was group accountability. Consequently, in Case 1 the majority of decisions were left up to Roy, and in that sense he had wide ranging interpretation and discretion, but it was limited, whereas in Case 4 discretion was used by each of the business managers for the specialist group. Their assumptions were not seriously questioned and they had a high degree of interpretative latitude.
Organising via project teams led to the tight control of task identification, allocation and completion. In turn, the accomplishment of these tasks led to the gradual accretion of action. All tasks were complimentary to each other and the project team format facilitated clear communication and appeared to foster positive group processes. Case 2 provides some appropriate examples of this in terms of the high level of co-operation between clinicians and managers.

The consultant members of the project group taught themselves how to measure and test the market share for pathology. They then shared this information with both standing and co-opted members of the project group and this information was blended into a pricing structure for pathology tests which eventually lead to a definition of affordability for the investment and the service itself.

As well as providing the framework for accountability, the bureaucratic structure may also have influenced learning processes. As a result of the hierarchical nature of the NHS bureaucracy, guidance and advice is passed from top down and as such provides one of the building blocks for knowledge, but it is a route to knowledge which is controlled and designed by the policy formulatators and hence theoretically should afford some degree of policy-action congruity.
Figure 8.1.3.2: Case Categories (STRUCTURE)

**OPEN CODING**

**STRUCTURE**

<table>
<thead>
<tr>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
</tr>
<tr>
<td>Size</td>
</tr>
<tr>
<td>Processes</td>
</tr>
<tr>
<td>Control elements - accountability, decisions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longevity of shape &amp; size</td>
</tr>
<tr>
<td>Intensity, duration, direction of processes</td>
</tr>
<tr>
<td>Breadth and depth of control</td>
</tr>
<tr>
<td>Pattern of control</td>
</tr>
</tbody>
</table>

**AXIAL CODING**

(A) Causal Conditions  
(B) Phenomenon  
(C) Context of Structure

- Organising via project teams  
- Interaction of actors  
- Group processes  
- Individual status  
- Communication patterns  
- Co-ordination, command & control  
- Interpretative and decision latitude  

Organisational and interpersonal structures impact upon implementation. Organisational and interpersonal interaction occurs within a project team structure of a limited duration. Communication processes occur within and outside of the project teams. Control of tasks and processes occurs in a bureaucratic pattern. The range of control is effected by actors' interpretation and latitude of decision making. This degree of discretion is related to the bureaucratic structure.

(D) Intervening Conditions  
(E) Action / Interaction Strategies

- Choice of structure for the task.  
- Bureaucratic deviance / obedience  
- Rules of accountability  
- Level of delegation  
- Group processes  

- Match structure to rules of accountability  
- Choice of group / project team members  
- Recognise impact of discretion  
- Monitor processes  
- Understand control mechanisms
8.1.3.3 Knowledge

Access to and the use of knowledge is key to the process of learning. It is however, dependent upon data and information and the degree to which this can be processed and synthesised. Again the process of knowledge acquisition was not conscious on the part of the actors, the conscious effort was engendered in terms of data gathering and information processing.

Each case demonstrates how the knowledge created was retained, and the key role in retention was the actual recording of information and then its use in answering a problem. The actual production of a document called a business case facilitated this process meaning that it could be used as a future reference manual. Thus, there was a difference between Case 1 and Case 3. In Case 1 there were no precedents for investment appraisal under the new policy environment in the NHS within the Trust, and very few, at that time, on a national basis. Conversely, in Case 3, three years later not only had this Trust previously written as a business case, but it also had access to a good deal of comparative information from the NHS outpost and other Trusts.

The use of financial modelling, on personal computers using spreadsheet analysis, also assisted the development of knowledge. Case 4 is perhaps the best example of this, modelling helped the actors to deal with complexity. It also forced actors to make explicit many of their tacit assumptions. Knowledge development is related to structure, particularly in respect of how information was pooled within the project team and in turn how members of the team took on the role of teacher. Both Case 1 and Case 3 demonstrate how managers and clinicians explained things to each other. In Case 1, the
emeritus professor of epidemiology's information helped in the needs assessment whilst the managerial understanding of internal market competition was explained to the doctors.

However, as with the category 'timing' the recording and sharing of information is insufficient in itself to create knowledge. Knowledge is also a function of the capability and capacity of the actors to internalise the information and apply it to solve problems.
**OPEN CODING**

<table>
<thead>
<tr>
<th>Properties</th>
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</thead>
<tbody>
<tr>
<td>Codified</td>
</tr>
<tr>
<td>New</td>
</tr>
<tr>
<td>Old</td>
</tr>
<tr>
<td>Tacit</td>
</tr>
<tr>
<td>Explicit</td>
</tr>
<tr>
<td>Discovered</td>
</tr>
<tr>
<td>Original</td>
</tr>
<tr>
<td>Copied</td>
</tr>
<tr>
<td>Comparative</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex - Easy</td>
</tr>
<tr>
<td>Rational - Intuitive</td>
</tr>
<tr>
<td>Shared</td>
</tr>
</tbody>
</table>

**AXIAL CODING**

<table>
<thead>
<tr>
<th>(A) Causal Condition</th>
<th>(B) Phenomenon</th>
<th>(C) Context of knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem solving</td>
<td>Knowledge</td>
<td>In order to implement and bring about action, knowledge has to be available.</td>
</tr>
<tr>
<td>Need to know</td>
<td></td>
<td>It is created in response to a problem, finding solutions from a number of sources: either copied, or invented.</td>
</tr>
<tr>
<td>Responding to instruction / guidance</td>
<td></td>
<td>Knowledge is required to respond to an instruction (guidance).</td>
</tr>
<tr>
<td>Comparative experience</td>
<td></td>
<td>It can be old knowledge derived from experience, or, new knowledge derived from induction and deduction or comparison. Rationality, intuition and sharing help the development of knowledge. Varying levels of complexity are exhibited.</td>
</tr>
<tr>
<td>Answering questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dealing with complexity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producing a solution</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(D) Intervening Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of data, expertise and experience</td>
</tr>
<tr>
<td>Recording knowledge</td>
</tr>
<tr>
<td>Diffusion of knowledge</td>
</tr>
<tr>
<td>Capability of knowledge brokers</td>
</tr>
<tr>
<td>Capacity to absorb knowledge.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(E) Action / Interaction Strategies for Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diffusion of knowledge</td>
</tr>
<tr>
<td>Guidance</td>
</tr>
<tr>
<td>Accessibility</td>
</tr>
<tr>
<td>Explanation and assistance</td>
</tr>
<tr>
<td>Replication and recording</td>
</tr>
</tbody>
</table>
8.1.3.4 Capability

Learning how to do something new, is related to the capability of people and their organisations, and can be expressed in terms of expertise and capacity. The cases have demonstrated that capability can increase, particularly over time and particularly in relation to the availability of expertise. Case 4 was the most complex of the cases but most of the actors involved had the benefit of four year's experience of completing business cases themselves or learning from those completed elsewhere. Hence, some of this knowledge had diffused or been copied by the Case 4 actors so making them appear more capable to the observer. On the other hand, for those actors in Case 1 their business case was the first which they had to complete and also one of the first in the country under the new rules. Consequently, their initial capability was low and they needed to learn a great deal.

This point about increasing capability can also be made in relation to experts. It would appear that capability can be imported via the use of external experts as was demonstrated by all the cases except Case 3. Furthermore, this point was supported by 'Geoff' in the interview when he explained that (currently) he feels he knows more than the experts.

Capability is not, however, just related to the individual actors' capability. The sort of strategic activity needed for a business case is also a function of the organisations analytical capacity. In turn, not only is this related to the type and availability of knowledge, but also how this knowledge is manipulated and summarised into usable information. Thus, computational capacity and data analytical skills are very important.
(Finally, and very much echoing Deutsch's argument that learning capacity is a function of the uncommitted resources available (see Chapter Five)), there was evidence that those Trusts which had set aside time, staff and money to complete the business case, over and above other tasks, made a quicker start at solving problems. This was especially so in Cases 3 and 4.
Figure 8.1.3.4: Case Categories (CAPABILITY)

**OPEN CODING**

<table>
<thead>
<tr>
<th>CAPABILITY</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Competence</td>
</tr>
<tr>
<td></td>
<td>Expertise</td>
</tr>
<tr>
<td></td>
<td>Skill</td>
</tr>
<tr>
<td></td>
<td>Experience</td>
</tr>
<tr>
<td></td>
<td>Understanding</td>
</tr>
<tr>
<td></td>
<td>Capacity</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
</tr>
<tr>
<td></td>
<td>Time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
</tr>
<tr>
<td>Low</td>
</tr>
<tr>
<td>Superficial</td>
</tr>
<tr>
<td>Deep</td>
</tr>
<tr>
<td>Tried and tested</td>
</tr>
<tr>
<td>Newly developed</td>
</tr>
</tbody>
</table>

**AXIAL CODING**

<table>
<thead>
<tr>
<th>(A) Causal Condition</th>
<th>(B) Phenomenon</th>
<th>(C) Context of Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution of issues / problems</td>
<td>Capability</td>
<td>Organisations and their actors need to be capable of implementing policy.</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>Capability can be developed by education using experts or written and researched knowledge. Capability is enhanced by practice and experience. The extent of capability is related to the capacity of the organisation. Capacity includes time, human and technical resources.</td>
</tr>
<tr>
<td>Using experts, getting expert help</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparative experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Match between resources and capacity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(D) Intervening Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of knowledge and expertise</td>
</tr>
<tr>
<td>Excess / insufficient capacity</td>
</tr>
<tr>
<td>Development and maintenance of competence</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(E) Action / Interaction Strategies for Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proactive and reactive management of capacity issues.</td>
</tr>
<tr>
<td>Encouraging preparedness for problem resolution by developing individual and organisational capability.</td>
</tr>
<tr>
<td>Maintaining practice.</td>
</tr>
<tr>
<td>Ability to access pools of experts and knowledge.</td>
</tr>
</tbody>
</table>
8.1.3.5  **Detail**

Detail is at the very heart of implementation, for it is detail which helps to bring about the translation of strategic thought into operational action. Action needs work routines, task information and a myriad of other processes. None of these can be achieved without specific detail expressed either as instructions, guidelines, or directives. Detail concerns micro action, and this is difficult to research. Furthermore, actors more often than not have very little conscious awareness of how they are doing a job. Of course, one of the difficulties of designing strategic public policy initiatives is the difficulty of predicting the resulting detailed operations, not that this in itself would be uniform either geographically or temporally. It is only once implementation has taken place that some indication of the consequences of detail can be assessed.

It is also in this area of moving from abstract ideas to detailed execution and action that the greatest degree of interpretative latitude and discretion lies for bureaucrats. A uniform result from each of the case studies was the search for the invention and construction of detail to operationalise the abstract policy when no detailed solution was available *and then* the routinisation of this detail to use again: hence, when a solution was found, it was almost treated as being multipurpose.

The detail was routinised in terms of written guidelines, collective memories of 'we normally do it this way', or 'we did it that way before'. Computerised macro routines were also used if they had been found to be effective before. Thus, in Case 3 'Roy' and his team brought a very specific principle to bear on how they dealt with the Regional Office of the NHS Management Executive, because it had worked in the past. Similarly,
in Case 4, some risk return ratios had already been calculated for previous investment appraisals, the principles of which were already included in macro routines on Lotus 123. There is also another dimension to detail, that of procedural detail. On the one hand there is technical detail which impacts upon the results of implementation and how the policy initiative is experienced 'on the ground'. Equally important is the detail relating to the process of implementation, some of which is addressed in Section 8.1.5 of this chapter.

The way the processes operate can also impact upon the final product of implementation. Methodologically, capturing and explaining detail is problematic. This is because of the sheer volume of detail, the need to understand how it contributes to the overall picture and the problem of categorising it. Process observation and ethnographic methods help to go some way towards addressing these problems.
Figure 8.1.3.5: Case Categories (DETAIL)

**OPEN CODING**

**DETAIL**

<table>
<thead>
<tr>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particular</td>
</tr>
<tr>
<td>Specific</td>
</tr>
<tr>
<td>Communicable</td>
</tr>
<tr>
<td>Technical</td>
</tr>
<tr>
<td>Procedural</td>
</tr>
<tr>
<td>Dimensions</td>
</tr>
<tr>
<td>Integrated</td>
</tr>
<tr>
<td>Complete</td>
</tr>
<tr>
<td>Sufficient</td>
</tr>
<tr>
<td>Macro - Micro</td>
</tr>
</tbody>
</table>

**AXIAL CODING**

(A) Causal Conditions (B) Phenomenon (C) Context of Detail

Strategic translation  ➔ Detail  Implementation as the bringing about of action requires a translation from strategic policy to operational activity. This translation relies upon detail which is specific and particular to the problem. Detail is important in the planning and execution stages. It may be new detail for the first implementation of a policy. For ongoing implementation detail can be stored by recording and by the routinisation of tasks associated with operationalising policy.

Operationalising policy ➔

Moving from abstract ideas to executing ideas ➔

Planning activities ➔

Forecasting activities ➔

(D) Intervening Conditions (E) Action / Interaction Strategies for Detail

Presence / absence of familiarity with detail  Operational familiarity

Knowledge, expertise  Supervision of strategic translation

Degree of complexity  Accessibility of routinisation

Translatability of abstraction  Attention to micro detail

Feasibility  Awareness of consequences

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Data

Data is directly related to knowledge, capability and detail but has been given a separate category because within Capital Investment Appraisal it is very much the raw material of decision making. Therefore, indirectly the results and nature of implementation can be traced back to the extent, quality and validity of the data used to make decisions.

Even given conditions of near perfect timing, structure and capability little progress could be made towards implementing the new NHS Business Case requirements without some hard data. Furthermore, because of public accountability the available data and its manipulation form an important part of the audit trail for investment appraisal evaluations.

Coping with data handling varied throughout the cases and was related to capability, particularly technical capability for data manipulation and modelling. The most technically advanced examples were in Case 2 and Case 4. At the same time, actors within Case 2 had the most difficulties obtaining meaningful data, particularly, that capable of comparison with other Trusts.
Figure 8.1.3.6: Case Categories (DATA)

OPEN CODING

DATA

<table>
<thead>
<tr>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative</td>
</tr>
<tr>
<td>Quantitative</td>
</tr>
<tr>
<td>Accessible</td>
</tr>
<tr>
<td>Indicative</td>
</tr>
<tr>
<td>Substantive</td>
</tr>
<tr>
<td>Certainty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
</tr>
<tr>
<td>Confirmatory</td>
</tr>
<tr>
<td>Validated</td>
</tr>
</tbody>
</table>

AXIAL CODING

(A) Causal Conditions (B) Phenomenon (C) Context of Data
Seeking evidence Data Implementation requires forward planning. Uncertainty will be part of this process, data helps to reduce the potential risk associated with uncertainty. Data can be manipulated and used to explore the options for, and consequences of, implementation.
Explanation
Forecasting
Predictive ability
Planning
Anticipating risk

(D) Intervening Conditions (E) Action/Interaction Strategies for Data
Ability to model data Data Handling capacity
Availability Computer readable
Replicability Systematic management
Comparability Auditable
Accuracy Comparisons
Validity
8.1.4 Interpretation of Substantive Issues

The idea of differentiating between substantive and process issues is drawn from work on negotiation theory and techniques. Process issues are about behaviour, attitude and cognition whereas substantive issues relate to the facts, tasks or decisions which need to be dealt with.

Traditionally, as we discussed in Chapter Four implementation studies have tended to focus almost solely upon the substantive issues relevant to a particular policy e.g. problem tractability and structures. This research has attempted to integrate the two. The next chapter presents the results and full interpretation of the field observation and textual analysis of interviews. Figure 8.1.1 (column 2) presents the range of substantive issues derived from the cases, the importance of these issues will now be explained. Their explanation needs also to be understood in the overall context of Chapter Two and the changes which have occurred in the 1990 NHS as a result of the NHS and Community Care Act.

However, prior to this explanation, it is worth noting why they have more importance than merely being localised and specific problems which need to be solved. Thus:

(i) The substantive issues can be viewed as the intended and unintended consequences of the policy initiatives. This happens either because of direct Departmental guidance, e.g. 'demonstrate affordability' or indirectly, because of the internal market e.g. business independence for the Trusts.

(ii) Given this, then to a large extent, the substantive issues constitute how the bureaucrats actually experience implementation and of course, in turn, significantly impacts upon the type of health service finally delivered.

(iii) The substantive issues are about detail and as such their impact is difficult, if not impossible, to predict at the policy design stage. As this detail is
worked out at street level, then this is where the beginnings of policy-action incongruence may happen.

(iv) The substantive issues often serve to demonstrate the mismatch between the culture and ideology of the national policy versus the culture and ideology of the operating service. This could also be interpreted within the public sector as the philosophical and practical problems of using a public choice and a commercial model to manage what was historically and culturally a state welfare model.

(v) The substantive issues constitute the majority of the (non process) areas which the managers needed to learn about.

(vi) The issues are, and were misunderstood, and some of the issues have created insoluble problems e.g. the definition of the unit of activity for pathology service - should it be a 'test' or a 'request'?
<table>
<thead>
<tr>
<th>SUBSTANTIVE ISSUE</th>
<th>MEANING</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>The independence of NHS Trusts has meant, not independence from public funding, although they can access private patient income, more it has meant independence in terms of accountability. The development of their own non-executive Boards has created an additional form of accountability.</td>
<td>One result of this has been the reduction in support traditionally available from the (then) Regional Health Authorities. This has been particularly strongly felt in terms of clinical research advice, which used to be provided from Regional Speciality Sub-Committees.</td>
</tr>
<tr>
<td>Independence</td>
<td></td>
<td>A similar impact has been felt in terms of support functions (e.g. training, human resources and finance) traditionally provided from the former District Health Authorities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional building services, architectural practices and project management services were all market tested in the 1980s and many units disbanded.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The result of all the above has been that Trusts still need such advice but have been forced to buy or contract such expertise into their organisation. Hence, the increased use of management consultants. However, some expertise is far less easily available, particularly expert clinical advice, and all of it comes at considerable financial cost.</td>
</tr>
<tr>
<td><strong>SUBSTANTIVE ISSUE</strong></td>
<td><strong>MEANING</strong></td>
<td><strong>IMPACT</strong></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
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</tr>
<tr>
<td>$\chi^2$ Internal competition</td>
<td>Inter Trust competition has been a cornerstone of the NHS reforms. Trusts competed with each other for the same contracts from neighbouring health authorities. Many Trusts set up internal competition by organising cost centres for particular services e.g. surgery, radiology, pathology and constituted these centres as SBU’s (Strategic Business Units).</td>
<td>These are good examples of a direct transfer from the commercial sector of business 'structures'. They are founded on accounting principles, and of course make important assumptions, e.g. that there is an ability to cost fixed costs accurately and that overheads can be distributed to reflect activity. It has also meant that there was a false separation between internal services, e.g. all surgical services are dependent on the diagnostic services, as they are on administration and catering. Making one department a profit centre has resulted in at least 5-6 new transactions being made explicit with other departments whereas previously there was a seamless service.</td>
</tr>
<tr>
<td><strong>SUBSTANTIVE ISSUE</strong></td>
<td><strong>MEANING</strong></td>
<td><strong>IMPACT</strong></td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>3 Proving affordability</td>
<td>One of the main differences from the pre-1991 Capital Investment Appraisal and the post April 1991 business cases has been the necessity to demonstrate that the investment is affordable: both to the trust and to the constituent purchasers and hence the NHS overall.</td>
<td>The Departmental guidance intimates that affordability is an <em>absolute</em>, rather than a <em>relative</em> concept. Under the cash limits, and cost reduction schemes operating in the NHS in the 1990s no additional monies have been available to fund the revenue consequences of large capital projects. Each therefore has had to be funded in terms of future revenue derived from anticipated future contracts and financial savings extracted from current services. One important issue has been that it has not been possible to demonstrate affordability for purchasers because their own financial strategy has been based on capitation and the so called 'distance from target funding' (a throwback to the old RAWP(^1) formula). Consequently, all business cases only showed <em>relative</em> affordability and given that contracts with purchasers were negotiated at a maximum for only three years it has been virtually impossible to predict 10 year affordability within the financial projections.</td>
</tr>
</tbody>
</table>

\(^1\) RAWP - Resource Allocation Working Party
<table>
<thead>
<tr>
<th><strong>SUBSTANTIVE ISSUE</strong></th>
<th><strong>MEANING</strong></th>
<th><strong>IMPACT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Demand Assessment</td>
<td>All business cases are required to present a quantified assessment of future demand. No detailed advice is available upon how to do this, but it has come to be interpreted as needs assessment minus efficiency improvement (e.g. higher throughput) multiplied by integer of future change based on the loss/gain of market share.</td>
<td>Demand assessment pre-supposes that (i) a unit of demand can be identified and (ii) that it can be quantified and forecast into the future. The Contract Minimum Data Set does identify a unit for contracting activity i.e. an FCE (finished consultant episode) but in terms of indirect activity, e.g. outpatient diagnostics, it is very hard to identify a unit of activity. Furthermore, whilst changes in purchaser intentions could be derived from their purchasing plans, the amount of a Trusts future market share was difficult to predict because competing Trust strategies were not available. The efficiency improvement integer tended to be used on an <em>ad hoc</em> basis and generally was based on the amount of cash releasing savings a Trust had to produce.</td>
</tr>
<tr>
<td>SUBSTANTIVE ISSUE</td>
<td>MEANING</td>
<td>IMPACT</td>
</tr>
<tr>
<td>------------------</td>
<td>---------</td>
<td>--------</td>
</tr>
<tr>
<td><strong>5</strong> Data gathering/Data handling</td>
<td>Qualitative and quantitative data are necessary to support all elements of the Capital Investment Appraisal process. The information precursor to the NHS internal market were the Korner statistics whose collection is mandatory; added to these are the data from the Contract Minimum Data Set. The resource management initiative, again which pre-dated the internal market and was intended to support it, was designed to allow all Trusts to have fully integrated and powerful computerised information systems, generally known as HISS systems.</td>
<td>There is significant geographical variation in the availability of data and presence or otherwise of a HISS system. Added to which, some of the information needed for Capital Investment Appraisal e.g. competitor data is not available. Increasingly, GIS (Geographical Information System) systems are needed, particularly in terms of demand assessment, and most Trusts have to purchase specialised GIS studies for their locality. In order to manipulate data from Korner and CM Data sets it had to be downloaded either onto Lotus 123 / Excel spreadsheets, or more effectively into SPSS/SAS statistical packages. Again, these were skills which during the case studies were not generally available in-house.</td>
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<tr>
<td>6 (\chi) Needs assessment</td>
<td>Needs assessment is designed to be the cornerstone of the Health Authority, GP Fundholder and all commissioning agencies purchasing strategy. It is based on epidemiological, geographical and historical patterns together with a willingness in general to support local providers, not least from the perspective of ensuring continued supply.</td>
<td>Ideally, from a Trusts perspective the commissioners will have incorporated their needs assessment into their purchasing plans, i.e. it would be the rationale to underpin purchasing decisions. It could logically be argued that Trusts, as providers, had, under the old system, been satisfying these needs by virtue of satisfying local demand. However, needs assessment is also used to change patterns of health care delivery and to re-direct both demand and supply using the contract mechanisms. Thus, the Trusts also find needs assessment a threat, if it means re-directing or changing historical referral patterns. For Capital Investment Appraisal, needs assessment forms part of the demand assessment and if it is not complete then the Trust needs to conduct some needs assessment themselves. They do not always have the expertise to do this.</td>
</tr>
<tr>
<td>7 (\chi) The definition and role of units of activity</td>
<td>See Demand Assessment (4)</td>
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<tr>
<td>8 The role of the centre and type of advice / guidance</td>
<td>Health policy is cascaded from the Department of Health and the NHS Management Executive to Health Authorities and NHS Trusts directly and, indirectly, via the Regional Office of the Management Executive whose main remit is for performance review. Policy exists in the form of White Papers, Statute, Standing Orders, Executive Letters, Research Papers and specific guidance for particular areas.</td>
<td>Centre-to-periphery guidance, legislation and instruction are the raw data of what public managers have to implement. The level of detail available and the degree of interpretative ambiguity varies and it is difficult to find reasons for the ambiguity. The guidance is obviously important not just in terms of accountability but because it is the closest that the Government comes to explaining to managers how to achieve the policy as planned. Once implementation has begun the relationship between the centre and the periphery is very important, affordability has to be agreed by the centre, the ultimate veto still exists with the centre, and the direction which the implementation process takes is designed to please, appease or meet the centre’s requirements.</td>
</tr>
<tr>
<td>9 Pricing / costing</td>
<td>The 'rules' for operating the internal market are heavily influenced by the pricing mechanisms designed for a service which previously had no price signals. Priced contracts are required to be based on costs, plus the capital charges element of all services.</td>
<td>In the early days of the market, not all capital assets had been valued which lead to some pricing anomalies. All Trusts had the same problem of not being able to cost many indirect or fixed costs. Pricing is linked to affordability in investment appraisal and, in turn, related to the definition of a 'unit' and hence average charges to the purchaser. If these figures are incorrect they can severely disrupt the market and cause many adverse contract decisions, added to which there is no absolute definition of correct or incorrect prices given the paucity of information available to construct costs/ prices.</td>
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<tr>
<td>10 Market risk</td>
<td>Given that Trusts are now placed in a market with internal and external competition then they were required under Capital Investment Appraisal to assess their relative position within this market.</td>
<td>Traditionally, a hospital manager, or consultant, or senior member of staff could no doubt explain where their hospital was placed in an 'imaginary' market. Mostly the rationale for this would be based upon perceived reputation and often whether the hospital was a teaching hospital or not, together with the degree of technology and innovation present. The internal market has required a much more quantified and harder definition of market share and the degree of risk involved in Capital Investment Appraisal. Thus, the 'market' it has tended to be measured in terms of total volume of activity; where patients have come from (via postcode analysis) and who referred them (GP analysis). However, comparative data for neighbouring hospitals is unavailable - it is only available for hospitals of a similar size and location. Nor is it possible to know the overall potential size of the market (i.e. the incidence of disease, prevalence and subsequent hospitalisation). Some modelling of market risk can take place by using scenario analysis and assessing loss of referrals or changes in referral patterns. Modelling is helped by the use of GIS but there is still a high degree of unpredictability involved.</td>
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<tr>
<td>11 Competitor analysis</td>
<td>This is related to establishing market risk (see above) and trying to anticipate the future behaviour of competing providers which would include the private sector.</td>
<td>Given that providers have been competing then they are unwilling to divulge details of their performance or future plans for development. Some of this detail has been available from the Regional Offices, but again, a great deal of strategic planning has been completed in the dark, in respect of pan-district or pan-regional developments.</td>
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<tr>
<td>12 Market share-market differentiation</td>
<td>Related to the two previous points. In addition, in order to improve their market share, many Trusts’ chose to differentiate themselves. This was normally achieved by emphasising particularly successful specialities of high repute, especially oncology, medicine of the elderly, neuroscience and other complex specialities.</td>
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<tr>
<td>13 Strategic uncertainty/technology prediction</td>
<td>Capital investment is about long term investment and forecasting. Apart from the uncertainties of short term contracts, and the unstable nature of the internal market together with the relative inadequacies of management information for the task required, NHS Trusts have also had to contend with the problem of anticipating and predicting the impact of technological change.</td>
<td>Medical and bio-medical technology has the chance to radically alter any contemporary patterns of care delivery, service design, disease prevalence and morbidity and mortality. At hospital manager level the degree of knowledge about medical technology is very much limited to products which have reached the market. Anticipating revolutionary new developments is practically impossible and, hence, it is too difficult to incorporate these effects into the future forecasting of activity.</td>
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<tr>
<td><strong>Business viability</strong></td>
<td>This term has been adopted from the commercial sector and relates to the overall survival of the hospital 'business' in the market.</td>
<td>There is no clear definition of what viable means. However, clinical viability tends to mean that there is work of sufficient volume and diversity to maintain an expert skill mix amongst clinicians. Added to which there needs to be a good mix of such clinicians to provide critical mass. Financial viability means that the Trust must meet its financial targets, i.e., to cover all its costs and capital charges and to contribute to cash releasing savings. Viability has to be proven along with affordability within business cases.</td>
</tr>
<tr>
<td><strong>Informed purchasing and degree of purchasing sophistication</strong></td>
<td>When the internal market mechanisms were first introduced, it was felt that providers actually had more knowledge about what the local population needed in terms of health care than the purchasers. This was because there were quite simply more clinicians at the provider level rather than at the purchaser level who had a far greater knowledge about local need. As the market has matured more skill and knowledge has developed within the purchasing organisations.</td>
<td>There are now more opportunities for sensible and informed purchasing decisions at purchaser level as their skills, experience and discrimination develops. Purchasers need to keep improving their needs assessment capabilities and this has happened with a dialogue developing between purchasers and providers.</td>
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<td>SUBSTANTIVE ISSUE</td>
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<tr>
<td>🏆 16 Entreprenenrial skills / commercialism</td>
<td>Behavioural as well as technical examples from commerce were introduced into the NHS during the reforms. Examples, of this are the adoption of generic models of strategic management (e.g. Porter's Five Forces) corporate image development and use of language e.g. 'bottom line'.</td>
<td>Some managers had natural commercial skills, others were recruited from outside of the NHS and hence, theoretically, understood such concepts as 'barriers to market' entry and 'value added'. However, the direct adoption of these models failed to explain operational or strategic problems within the NHS, ignoring as they do non-price mechanisms, professional dominance and the ambiguity of strategic goals in a highly politicised service.</td>
</tr>
<tr>
<td>🏆 17 Strategic planning / strategic definition</td>
<td>Given the Business independence of the Trusts referred to in Point (1), it also falls to them to develop their own strategic and business plans, together with sets of financial and management accounts.</td>
<td>Long-standing Trust chief executives did have some experience of strategic planning, and quite a number have completed MBAs. Their task has been twofold: to produce a strategic plan which responds to central government requirements and the purchasing intentions of the health authorities, and to also develop a plan which outlines a future direction for their own Trusts. The strategic dominance of capital investment appraisal always had to be taken into account in these plans. Added to which some Trusts had to make radical plans for disinvestment.</td>
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<td>IMPACT</td>
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<tr>
<td>Risk / Return ratios in Capital Investment Appraisal</td>
<td>The idea of risk /return ratios forms a natural corollary to financial strategic planning. Given the high level of ambiguity about the future for health care because of the aforementioned points, then many decisions had to be made upon the basis of approximation and probability.</td>
<td>Part of the 'option appraisal' which is required within the Business Case the requires that all options are 'scored' against a set of agreed criteria. These qualitative criteria are then combined with quantitative data like NPV (Net Present Values), ROCE (return on Capital Employed), and IRR (Internal Rate of Return) to estimate the preferred option. Varying degrees of risk are associated with each option and these needs to be assessed.</td>
</tr>
</tbody>
</table>
8.1.5 Process Observation

Schein (1987) provides a helpful explanation of the meaning of 'process'. For this research the distinction between how something is done or happens, rather than what is done will suffice. However, because the research concerns implementation, consideration of what is done has also to be included and this in part has been addressed in the preceding section on substantive issues (Section 1.4).

The events which occurred during the investment appraisals and the decisions which were made are all processes and the subsequent section 8.1.6 describes these through the means of a decision and event chart. Nonetheless, there is a vast amount of additional data concerning process which was also observed. One of the purposes of the written case studies was to convey some of these processes in narrative form, and the cases were designed to convey something of the personal and inter-personal behaviour which were apparent.

Analytically, there is a need to bring some structure to the myriad of processes which happened over the four and half years of field work. Schein uses the following cell matrix to focus on process in order to try and simplify the analysis of data:

<table>
<thead>
<tr>
<th>Context</th>
<th>Task</th>
<th>Interpersonal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Formal agenda, goals</td>
<td>Who is doing what to whom</td>
</tr>
<tr>
<td>Process</td>
<td>How the task is done</td>
<td>How members relate to each other</td>
</tr>
<tr>
<td>Structure</td>
<td>Recurrent processes - 'standard operating procedures'</td>
<td>Recurrent interpersonal relationships, roles</td>
</tr>
</tbody>
</table>

Source: Schein (1987) p. 40
The purposes of Schein's matrix is to act as an analytical template rather than a presentational tool to convey what processes occurred. As Chapter Nine demonstrates it is felt that this is more effectively achieved in narrative form.

8.1.5.1 Group dynamics and social psychological processes

Given that one of the key structural elements in implementing the new requirements for business planning was the use of project teams then it is relevant to consider group processes and group dynamics. The dominant literature on Implementation is drawn from political science and the bureaucratic policy process. However, the dominant idiom for group analysis is from social psychology: Baron et al (1992) provide a succinct review of the main theoretical components of group processes and decision making, many of which are common parlance within studies of both public and private organisational behaviour.

If the researcher has some knowledge of the common theories about group processes, then inevitably they are either consciously or subconsciously used to interpret the group members' behaviour during the observations. This is what happened with my four case studies and a summary of the most influential 'theories in use' is given in Figure 8.1.5.
### Figure 8.1.5: Implementation processes

<table>
<thead>
<tr>
<th>TASK &amp; INTERPERSONAL PROCESSES</th>
<th>ANALYTICAL TEMPLATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Processes</strong></td>
<td></td>
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<tr>
<td>Bureaucratic</td>
<td></td>
</tr>
<tr>
<td>Obedience</td>
<td>Applicable Social Psychological Theories 'In use' for Analysis</td>
</tr>
<tr>
<td>Discretion</td>
<td>Social Comparison <em>(Festinger, 1957)</em></td>
</tr>
<tr>
<td>Accountability</td>
<td>Social Exchange Theory <em>(Thibaut &amp; Kelly, 1959)</em></td>
</tr>
<tr>
<td>Learning</td>
<td></td>
</tr>
<tr>
<td>Mechanical</td>
<td>Social Facilitation / Impairment <em>(Zajonc, 1965; Cottrell <em>et al.</em>, 1968)</em></td>
</tr>
<tr>
<td>Cognitive</td>
<td></td>
</tr>
<tr>
<td>Behavioural</td>
<td>Motivation Gain and Loss <em>(Latane <em>et al.</em>, 1979)</em></td>
</tr>
<tr>
<td>Information Processing</td>
<td></td>
</tr>
<tr>
<td>Collection</td>
<td>Social Conformity <em>(Janis, 1972; Callaway <em>et al.</em>, 1985; Stasser &amp; Titus, 1985; Burnstein &amp; Vinokur, 1977)</em></td>
</tr>
<tr>
<td>Sorting</td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
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<tr>
<td>Representation</td>
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</tbody>
</table>

**Group Processes**
Figure 8.1.6a: Critical Event Charting

Case Study 1: Dale Children’s Resource Centre

Financial offer from Sainsbury’s to buy Clarence Centre land site

Recruit specialist accountant

Recognition of difficulty in assessing future “need” for client group

Realisation that new Business Cases require not only need assessment but a demand assessment based upon market share

Work commences on building design brief

Pressure builds from Sainsbury’s to vacate car park site

Pressure builds on project team to produce “successful” business case

Financial model for CIA now has to include cost of temporary accommodation

Confusion and uncertainty about establishing the financial affordability of scheme

Options ranked in terms of affordability

Options presented to LEA and Trust Chief Executive

Business Case completed with help from Regional Health Authority and in accordance with requirement of Capital Investment Manual

Centre built and operating at under capacity; Rental contribution with LEA still not agreed

Form project team to assess options

Develops economic model for cost benefit analysis

Access disparate sources of expertise to assist in needs assessment

Proxies for need agreed and 10 year forecast using proxies completed

Unable to assess market for client group

Assumption made to double capacity of any future centre from current 10,000 contacts to 19,000

Use proxies for need

Commission more epidemiological research

Need to seek temporary accommodation pending long term solution

Project team leader required to consult with LEA regarding suitability of temporary accommodation

Use portacabin OR Empty community hospital

Range of capital costs produced by design team for three permanent options and four temporary options

Basis of affordability decided by specialist accountant

Preference for town centre option stated by Chief Executive

Formal appraisal given for construction of new centre in town

KEY:
Red = Option
Blue = Decision
Green = Event
Figure 8.1.6b: Critical Event Charting

Case Study 2: Goodwin Hospital

- Need to move services from St. Leonards site and unify Pathology on main hospital site
- Agree to incorporate pan district rationalisation as an option within a Capital Investment Appraisal
- "Standing team" of planners incorporates clinicians to form CIA project team
- Health and safety report condemns St. Leonards site
- Prompts strategic and operational review of pathology
- Commence investment appraisal
- OR Pan district rationalisation
- Need assessment and demand assessment differs significantly from previous Business Case for Radiotherapy
- Commerce data gathering and options definition consecutively
- Project team agree that "maximum contracting position" - using an external contractor should be part of pan district rationalisation option
- Team realises that in order to assess future demand will need to calculate Trust's future market share
- No definitive way to measure dominance in market; use local intelligence and some interviews of external customers e.g. GPs
- Develop options to meet future needs and replace existing service
- Calculate capital and revenue costs for each option
- Using consulting accountant price service "per test" from capital and revenue costs
- Project team required to assess affordability of all options for Trust and purchasers
- Trust Board express concern about financial viability of all services - clear statement to project team to choose cheapest option
- Marginal financial differences between Day Hospital and Mansard Roof option; Reject maximum contracting position
- Business Case submitted to Trust Board for approval to choose "Mansard Roof" option for operational reasons
- Pan District rationalisation plans for Pathology shelved
- No building contract let for Business Case proposal. New Trust Chief Executive concerned about financial viability of project
- St. Leonards Hospital choice Pathology services transferred to upgraded old changing rooms in main hospital - never an option in Business Case

Maximise contracting position with
(a) Rest of NHS
(b) Private laboratories

Market share linked to local competition

Use time series analysis to assess past activity

Agree to size future facility on basis of past work and no growth

Maximum contracting position
Use Day Hospital
Mansard Roof on existing Blood Bank

Impossible to assess affordability to purchaser, because pathology tests are part of contract prices and cannot be disaggregated

Current occupants of Day Hospital unwilling to vacate premises
Figure 8.1.6c: Critical Event Charting
Case Study 3: County Royal Infirmary: Private Patients' Wing

United State International withdraw proposal to jointly develop a private patients' wing

Project manager recruits specialist accountancy support from outside the Trust

Project Manager commences initial negotiations with new private hospital company GBIII, and the first stages of developing the business case in parallel

Trust wide information sharing exercise to explain financial benefits of a Private Patients' Wing

Acknowledgement of financial importance of Private Patients' scheme to the Trust; discussions about most suitable form of risk return solution for the investment

Informal convening of consultants to support new Private Patients' Wing and withdraw their existing private practice from elsewhere

First exploratory meeting held between Trust and GBIII

Base of costing & income projections agreed, by comparison to competition's prices and what the insurers would tolerate

Full negotiations commence with GBIII as preferred joint partner

Parallel Trust discussions about how to calculate expenditure for the Wing

Trust's Project Manager coming under increasing pressure from Trust Board to finalize a deal

All members of planning group check operational feasibility of scheme

Trust Board passes sole responsibility to develop alternative proposals to one person as project manager

Decision made to offer Trust staff the opportunity of working in the Private Patients' Wing AND main hospital for financial reward

Demand forecast approach based on Private healthcare models using in situ norms and prices

Trust to fund the capital for, and manage, Private Patients' Wing

Input to fund capital, but let contract to manage Wing

Trust to get joint partner to fund capital but Trust to manage Wing

Full design, build & operate contract to private partner in return for rental return to Trust

Financial proposals shared with GBIII

Expression of interest documents sent to other potential partners

Assumption made about occupancy with maximum bed occupancy assumed at 65% of total capacity

Finally agree to use previous basis for expenditure i.e. price + 10% for non-staff costs

Formal agreement to join with GBIII for a build and manage contract
Figure 8.1.6d: Critical Event Charting

Case Study 4

- Secretary of State agrees to closure of accident and emergency services at Site B
  - Trust commences business case procedure; recruits outside expert assistance

- Acknowledgement of complexity of trying to assess demand for three hospitals into one
  - Internal project management structure established: consisting of capital strategy group and strategy clinical working group

- Recognition of potential to lose market share as a result of rationalisation seen as "displaced market share"
  - Agree to use Tomlinson Report planning norms and LIG performance targets to help calculate demand

- Design of weighted flow model to assess quantifiable impact of displaced market share
  - Demand levels agreed by CSG as a result of using planning norms (above) minus displaced market share

- Design team develop physical plans to match demand forecasting

- Severe site constraints encountered on both main site: obstacle of listed buildings at Site B and underground at Site A
  - Strong anti-Site A lobby from oncology department

- Issue of clinical critical mass raised by clinical working group
  - "Save the hospital" campaign launched

- Clinical critical mass adopted as main criteria for future developments: requires co-location of all specialties
  - On this basis Neurosciences and cardiac services agree to move to one site: express preference for Site A if provided with 'Institute' status

- Accountants and economists commence costing for both site options
  - Basis of costing approach agreed in "cost driver" model

- Concept of affordability ill understood in detail; prices for future services calculated on basis of demand forecast and cost driver model
  - Commissioning Health Authorities agree in principle to prices but can only commit to purchase for 2 yrs

- Results of rationalisation will have impact upon primary care services: Overall failure to analyse and quantify this effect

- All operating and capital costs completed: fed into pricing model
  - Basis of final decision on option foiled upon lowest operating cost: best clinical co-location and overall operational simplicity

- Final scheme design based on one site, so complex in terms of feasibility that a phased approach to re-development agreed
  - Single site option based at Site A agreed: future of Site B uncertain
8.2 Stage 2: Textual Analysis of Taped Interview

8.2.1 The Linguistic Analysis

Chapter Six explained the importance of using linguistic analysis as a means to understand actor motivation, action and process. The unstructured interviews with the implementation actors produced a considerable amount of data, transcribed from the tapes used in the interviews. It was decided early in the interviewing process to use a computerised database to deal with the transcribed data. An ordinary word-processing package would have provided some of the capacity by which to store and manage the data, however word processing packages do not allow the same level of analytical capabilities as QSR.NUD.IST.

QSR.NUD.IST is an advanced computerised qualitative data handling package. Its advantages for this project are that it allows:

i. Data storage
ii. Data management and sorting
iii. Data coding possibilities
iv. Data analytical possibilities

It is up to the researcher in terms of how far they wish to exploit NU.DIST's capabilities. In this research, all of its capabilities have been used as explained below.

The linguistic analysis of the interviewees using QSR NUD.IST has a number of stages and it is helpful to use the same terminology to describe these stages as the NUD.IST software manual. There are two elements to the structure of NUD.IST: namely, a
document system and an index system. The document system contains the full text which is being analysed; it also assists in terms of data handling and management. The index system is the basis of the coding system and is the 'engine' behind NUD.IST's analytical capabilities. The structure compliments the functions. These are: information, indexing and remarks. Information relates to all the data about the document; indexing is the coding mechanism chosen and remarks relates to a 'memo' facility within the coding (index system) which allows the researcher to record their analytical logic. The processes which all this leads to one to *Index, Search and Theorise* (which provide the 'IST' in NUD.IST).

### 8.2.2 Indexing

Indexing operates by reading the text in whatever 'text unit' has been chosen. This research has used each line, (it could be word, sentence or paragraph). The rationale for choosing a line is that when the tape is transcribed it is difficult to know when a new sentence has formed naturally. Therefore, there is a degree of interpretative latitude about sentence construction. Using words as the text unit would have generated too much data; using a line was manageable and gave enough detail to help the detection of important word usage and idea association.

The index system and hence coding logic is developed by using 'nodes'. Each node is an index category and whilst in NUD.IST they can have many different functions they have been used here to convey concepts developed from the data. It is quite important to note that the inductive element of the research was ensured by reading each line of the transcript on NUD.IST and coding as reading progressed with ideas generated by the
text, not using a pre-selected group of codes. For example, it would have been possible to use the coding structure from Stage One of this analysis (Dendograph categories).

The benefits of NUD.IST are such that the index system is flexible and can be altered and regrouped. It also provides a visual structure of the index system portrayed as an Index Tree. All nodes spread down from a single node, called the root. Perhaps the single defining added capability of NUD.IST above other software is the way it allows the relationship between categories to be established.

Every node has the ability to have attached to it other nodes, known as Children nodes, which in turn can have nodes attached to them (one is tempted to say grand children nodes, although QSR do not use this nomenclature) and so on. Thus, it is possible to develop a structured relationship between all the codes and their information because NUD.IST is actually holding the text relating to each node. Hence, it is not only the node which is structured in relation to teach other, but also the associated data: this is how the searching element of NUD.IST operates. Thus, via the trees of nodes and sub-nodes, it is possible to bring order to the traditional unstructured heap of categories' in qualitative research (QSR, 1995, p. 12).

There is some debate about the correct use of the term hierarchy to convey how the nodes are arranged in an index tree. In the purist sense the hierarchical categorisation is there to support methods of analysis and to smooth out the relationship between categories - it is there to hold ideas and define these relationships. It is not hierarchical in the sense of one category dominating other.
8.2.3 Searching

NUD.IST allows two sorts of searching: text searching and index searching (i.e. around the nodes and their trees). The text searching is similar to that on advanced word processing packages in that it facilitates string and pattern searches and is ideal for content analysis.

Another unique facility of NUD.IST is its ability to save the query itself together with the associated data generated. The data can be saved as another node within the index system and can then be used to contribute to yet more queries. QSR call this ability system closure such that the findings remain within the project as new material for the research. It is akin to 'Theoretical sampling' and is one of the reasons why NUD.IST is a sympathetic tool to use with a grounded theory approach.

Glaser and Strauss's (1987) development of 'Theoretical Sampling' supports the idea of emerging theory and the constructs of theory are developed by looking at each construct in different settings and with different actors, so developing a statement about the conditions under which a construct and theory will work (Miles and Huberman, 1994). Overall then, NUD.IST supports this interactive process with its system closure.

The second search method is the index system search, which allows searches to be performed on each of the nodes and attached subtrees. There are 18 search commands within NUD.IST 3.0, each with a different operator instruction which is taken from the handbook and user guide.
Figure 8.2 provides a diagrammatic representation of NUD.IST’s structure and functions. Figure 8.2.1 presents the nodes and subnodes which make up the integrated conceptual tree which has emerged from the analysis of the interviews. Figure 8.2.2 presents these categorical concepts in their tree formation.

8.2.4 Theorising

The text was searched not by using the 'text search' option within NUD.IST but with the Index Search System (ISS). The ISS allows questions to be asked about the relationship between categories. It is also from the index system that any hypothesis can be tested and theories developed. Within NUD.IST there are groups of search operators:

(i) Collating operators (collates nodes)
(ii) Contextual operators (conditional e.g. 'if' inside text for a node; or 'at least' a stated number of nodes)
(iii) Negation (exclude nodes)
(iv) Restrictive operators (including / excluding)
(v) Taxonomic operators (merges text throughout the whole tree within node and subnodes)
(vi) Matrix construction operators (qualitative cross tabulation)

For the purpose of all the textual analysis conducted in this research the latter operator 'Matrix construction' was used.

8.2.5 Significance of the Cross Tabulation Analysis

By using the "Matrix construction" facility in NUDIST it is possible to perform a qualitative cross tabulation of variables. Such an analysis has similarities to the more
familiar quantitative cross tabulations available in statistical packages. However, the variables which are used here are some of the qualitative themes which have been derived from the analysis of the taped interviews using NU.DIST.

They have been selected as some of the key themes by which to address the following questions.

What aspects of learning lead to the operationalisation of policy? (14 22)
Do structures have an impact on learning? (14 20)
Why do actors bother to learn? (14 1)
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What do we know about the relationship between learning and motivation? (14 13)
What influences the degree and type of motivation? (13 1)
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Table 8.2.3 shows how ten of the thematic variables have been cross tabulated with two of the themes namely "motivation" and "learning". Where the cell has an "x" in it, it shows that there was a positive cross tabulation of themes. This means, according to the coding structure used in NU.DIST, that narratives carried a thematic classification of more than one theme, and hence produced the correlation.
It has then been possible to infer a relationship between these variables from the speech of the interviewees. The consequences of these relationships are discussed in detail in Chapters Nine and Ten.
Figure 8.2: Schematic NUD.IST structure and functions

Source: di Gregorio (1996) (Amended)
Figure 8.2.1: Schematic of NUD.IST nodes and subnodes (Version 3 unable to print node reference numbers)
Figure 8.2.2: Example of nodes and subnodes used in coding (Version 3 unable to print all children in root)
Table 8.2.3: *NUD.IST* qualitative cross-tabulations

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(22 1) /operationalised/detail
Table 8.2.3: NUD.IST qualitative cross-tabulations

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8.3 Stage 3: Development of selective and conditional matrices

8.3.1 The third stage of the analysis

The third stage of the analysis incorporates data from the case study observations and the textual analysis of interviews. It commences after the open and axial coding of the data. Conceptually, selective and conditional matrices are part of the Grounded Theory Approach and the ideas are very well explained in Strauss and Corbin (1990).

Selective coding involves selecting and defining a core, explanatory, category from those identified in the previous stages. It then involves relating this core category to other categories using the paradigm model of identifying its properties and dimension and relating these in terms of the stages A-F (as presented in the logic diagrams Figures 8.3.1-8.3.6.). In other words, selective coding involves repeating these axial coding procedures but for a core category.

The selection of this core category is very important as it forms the basis for developing a statement of theory concerning the research. The process of relating the core category to the other categories is influenced by 'intervening sets of conditions' or contexts, i.e. the other categories are conditionally related to the core category and this is how a conditional matrix is formed.

The exercise of relating categories as a conditional basis is part of the 'constant comparative method' which is so important to Glaser and Strauss's approach to developing a Grounded Theory and it forces the researcher to keep focusing down on what the key explanatory concepts of the research are. Chapters Nine and Ten are the
results of using all the Stages explained under this analysis and in particular the 'Theory of Learned Implementation' which is put forward in Chapter Ten is the result of performing selective and conditional analysis as explained here.
CHAPTER NINE

INTERPRETATION OF RESULTS AND FINDINGS

9.1 Introduction

How do public services managers implement new public policy? This is the research question which has been addressed, using an interpretative ethnographic approach, built around four case studies of capital investment appraisal, in the British National Health Service. The research question has also been explored in conjunction with a working hypothesis that such managers are in a state of both technical and procedural 'ignorance'. Health services managers are asked to enact policy when the only instructions which are issued with new policy initiatives are guidance notes and some procedural manuals. Consequently, if these managers are to fulfil the requirements of their bureaucratic responsibilities, then, in order to enact the policy requirements, they need to learn.

In this Chapter the findings derived from the analysis of the non participant observations and the textual analysis of interviews with managers will be presented and interpreted for meaning. This interpretation takes place in the context of the substantive issues which impact upon capital investment appraisal in the NHS. The previous chapter sought to harness and categorise the large amounts of data which have been gathered into a system of conceptual categories. This chapter will now open up these categories and discuss them in relation to each other and across the cases.
The chapter is organised in terms of the six broad themes of learning which managers in the NHS had to address if they were to enact the new Capital Investment Appraisal Mechanisms consequent upon the 1990 NHS and Community Care Act. These are shown in Table 7.2 together with how these themes manifested themselves in the four case studies.

That the managers did not know what to do when the Policy was introduced is evidenced by the following excerpts:

+++ Text units 125-132:
R: No, this was just an idea we were......somewhere out there in the ether......, so we came back and said we'd better write something now then. So we did it, not to any rules because it was pre capital investment manual. So we invented a business case, whatever the business case was, and I sat down with my estates people and said "I've had a think; we are going to do it like this."

The following text comes from one of the accounting experts used in Case One to advise upon how to cope with the capital accounting mechanisms. In his opinion the introduction of private sector approaches was (i) desirable and (ii) planned as a curb upon capital spending.

+++ Text units 66-80:
OM: Well, lots of people hadn't done business cases, and you have the guidance that was issued, and the guidance made it clear the kinds of things that you were required to do. But up until then, things were fairly lax, you could virtually get funding for jobs without going through all the hoops, and I think then things were tightened up very considerably, because there was a shortage of money, and during this business case, as much a means of restricting
the amount of jobs coming forward than anything else. And in fact they got into a lot of trouble with one scheme being developed here, another scheme next door, they both end up sub opting them, and someone says: "Well how the hell did you manage to end up with two sub optimal schemes?" And it's because the business cases weren't made at the start.

However, the guidance issued from the Department of Health did not make it clear to NHS managers how to achieve private sector capital investment techniques. It was clear though to such accounting experts as 'OM'.

9.2 The need to learn

Those managers who had the responsibility for developing a business case for strategic capital investment in the early years of the health reforms had less experience and were in a state of 'ignorance' about how to go about it, when compared to those managers who, four and five years later, had developed some expertise and practice. However, even given the situation later in the 1990s, if a manager and project team had never before completed a business case, they behaved in the same way as those managers in the early 1990s, except that there was more knowledge and experience for them to draw upon from elsewhere. Supporting data for this can be seen from the following excerpts:

++ Text units 142-149:
S. I was new to the health service, and I'd never done any capital planning in my life before. If we go back, the first business case that I had to do was obviously the one for the radiotherapy unit. It was quite clear to me that there was no way I'd either got the time or the expertise to do it for myself, and that's when we appointed a consultancy outfit to help with that.
9.3 Substantive Areas to be Implemented

9.3.1 Business Strategy

The four Trusts experienced the need to develop a Business Strategy in very different ways. For Case One the direction for the future development of the Children’s Resource Centre had in many ways been set, prior to the new Act and Capital Investment requirements. The real issue facing them in terms of implementing the new procedures was their general lack of competence in strategic planning because they lacked specific procedural knowledge. This lack of knowledge included things like an inability to logically put a Strategy together. They also lacked skills in terms of how to conduct an external analysis of their environment. This overall lack of capability was exacerbated by the fact that they were a first wave Trust and in the rush to prove and establish their business independence they were virtually abandoned by the Health Authority and the then Regional Health Authority in terms of assistance from people who were more used to strategic planning.

In order to develop their capabilities and increase their competence the Trust sought the help and advice of experts. We can see from Case One that the expertise was in the form of an accountant rather than a strategist which is probably explained in terms of the access which the Trusts had to external consultants. They were, in the early
1990s, far more likely to contact the big 'five' accounting and management consultancy firms rather than the more niche public sector strategic planning consultancies.

When the actors from Case 1 were interviewed there was an acknowledgement that they had learnt, but that this might have been a one off event because in the late 1990s they now have the new problem of capacity, in terms of sufficient resources and time to complete business cases. Business cases tend now to be contracted in toto to consultancies with the consequent loss of in house knowledge.

++ Text units 381-385:
M: I think I have learned by making mistakes. I think that the mistakes I have made will be repeated again in the future. I think what I have now is more knowledge that will enable me to work through those mistakes.

++ Text units 545-555:
M: I think what's happening...we now are having to contract out business cases because they are now getting too difficult for us to do. We are not picking up all the tricks, so we are contracting out business cases, and we are very worried about the trick that you might miss on private finance, you have to go through that with a thorough tooth comb. So we now contract them out, so the danger is that we gained some skill, which we now don't have the ability to maintain and we are likely to collapse in terms of our ability to do these things.

The expert used in Case One has continued to develop his own capabilities, teaching himself throughout the six years since he helped in Case 1. However, he too notes that competence development has not been uniform across the NHS:
OM: 'I still think that within the service you still have a problem in that its very, the level of development is very fractured, you go to one place and you are really impressed, its almost to do with the individuals who are there, they take an interest and they push it, but in other places they just have a business case to do and they do the basics. What was done on this previous business case, let me follow the same steps and go through, and what happens then it goes up to Region for approval and they ask questions, and when those questions go back they seek advice from whoever they need to. And then they learn through that process, and I think that is what has happened. Its almost been by osmosis, and its almost been by question and answer as well.

The process of problem solving may still be piecemeal but, in his view asking other people how they have solved a problem is the vital factor. There was a more highly developed sense of strategic planning in Case Two. This was evidenced by 'Stella's' lead in the project team meetings and her own competence at strategic planning. Her competence was developed outside of the NHS but provided her with some transferable skills. The transfer of these skills was very much enhanced by the project team structure. Within the team she took on the role of teacher, or diffuser of her own knowledge and hence as an internal expert. Wider organisational rules and roles were 'suspended' within the project team and she was able to behave in a way which was conducive to being an advisor and teacher.

In Case Two, there was a slightly more well developed level of competence than in Case One, but the actors in Case Two also had to learn how to deal with a wide ranging strategic rationalisation of specialised clinical services, in this case Pathology
services. Added to which, one of the sub-problems of this rationalisation was that the
total externalisation of Pathology services also had to be considered.

These demands were addressed mainly through increasing the levels of knowledge of
the team as a whole in order that they could begin to (i) invent solutions to their
problem and (ii) have a basis for differentiation and choice between these solutions.
The group's trip to JSPS Private Pathology laboratories was an important step in
creating their knowledge bank through comparison. The whole area of Pathology
management is also one which is fairly rich in terms of official publications and
academic research. The work of the Audit Commission provided important data to
add to the pooled intelligence of the project team. The local intelligence of the
clinicians enabled micro level descriptions of what tests could be performed externally
and which ones needed to be retained within the hospital. Very interestingly, for the
business strategy as a whole, the team 'imported' the solutions they had used to
construct an earlier case for capital investment in radiotherapy. Even with this
knowledge, the team needed help, but this time they got help from a pathologist who
had previously worked for the RHA and from an external investment accountant.

++ Text units 8-12:
ID no doubt that if it hadn't been for the help we
received, there is no way we could have put forward
the business case as we did, and it would not have
been acceptable if we had tried to do it ourselves.
Perhaps the initial critical point then was the
decision to get help.

++ Text units 129-132:
Taking in on from there, there was Brenda who knew
about hospitals and the politics and the physical
structure of it, there was Stella and there was Ian
Davis as I say all of whom had different things to
contribute. I felt that was a very good team to work with.

A similar strategic demand faced the County Infirmary in Case Three. They too had to consider an alternative, non-public service provision for their private hospital. However, in their case, they decided to take the initiative before a hostile approach was made to capture any of their own services. The guidance on investment appraisal is silent in respect of dealing with the private sector in terms of option appraisal, other than the fact that Trusts were encouraged to consider private suppliers of services.

the County Infirmary was faced with the problem of implementing a commercial joint venture for private practice within the hospital. As in Case Two, knowledge and information were key to the way in which implementation progressed at the County Infirmary. A great deal of the flow of commercial negotiation and the type of approach which succeeds with private healthcare companies was learnt from their previous experience with United States International. During this relationship, United States International had set the tone and pace and, when it was left solely to the County Infirmary, they imitated the approach United States International had taken with them. So, in this respect they too learnt from experts by comparison and gradually developing their own knowledge bases to enhance their capability.

However, the added mechanism by which Case Three dealt with its need for increased commercialism in its strategy was via the personality of one of its key actors - 'Roy' and his previous experience of private and commercial businesses. It is difficult to
believe that this project would have been so successful without his role as a *key actor* in the implementation.

There was a strong degree of uncertainty at the County Infirmary about how to implement a commercial capital investment and this uncertainty was shared by the regional outpost office and some members of the NHS Executive. Such a dual ambiguity about what was needed may help to explain why relationships and individuals were so important in those early days of uncertainty before workable solutions were systematised.

++ Text units 118-125:
D One of the things that was very clear to us as far as the 'old outpost' used to function was that they put a great deal of store against both the organisation that they were dealing with, and its track record, and the individuals that they were dealing with within that organisation.

++ Text units 68-78:
R How we did it with them was that they came on their annual routine monitoring meeting and like any successful ethical business we roll out the red carpet for Head Office. So when they come we did the simple things, and we try to do the simple things well. So they come in, friendly car park attendant, named space, good morning sir, welcome, we are expecting you, would you park it here, through revolving door bring them round, show them where male and female loo is, sit down for a cup of coffee, nice welcome, do whatever.

The managers at the County Infirmary had also trained themselves intuitively to do what in strategic management terms is known as 'boundary spanning'. Thus they assessed the external and inter organisational environment and were proactive in their
response. The most important boundaries which they monitored were those between the Trust and the Department of Health and the NHS Executive.

++ Text units 36-40:
R: What you have to do, the successful Trusts are the ones that have got individuals that really identify the signs of change when there is a sea change coming.

++ Text units 46-53:
R: Well you start when the signs are there, but what happens is you get some strange letter, and you think what's this lot about, and the clue is that somebody has set up something at Head Office that is going to monitor it, quite rightly, or going to do whatever. Now we have had a good run as a first wave trust with having little or no real monitoring. We call it freedom.

R: What you do is, we invent certain procedures within ourselves that satisfies proberty, public accountability.

What, of course, Roy is describing, is an example of bureaucratic discretion in the face of ambiguous policy, issued without operational detail. Far from this being interpreted as the headache it might be, it is interpreted as freedom from control.

### 9.3.2 Implementing Capital Accounting Mechanisms

It could be argued that the greatest technical learning challenge for the managers came from the need to account for capital and include capital costs in the prices which Trusts charge to purchasers, and Case Four is the best example of this. By 1993-94 there was far more experience in the NHS about such technical requirements, but there was still no benchmark of technical accuracy, or ability to check if the Trusts were doing the calculations properly.
GS: Yes, because nobody had a clue how to do it. Nobody had a clue! Well some of them still haven't. Just do it on a spreadsheet. And they are still coming along with rubbish. And really the only way to test whether it will work or not is to shove people in at the deep end. You start with the philosophy of how you want to do it. Be this the internal market, capital investment, PFI, whatever, you see which ones float, and you change the policy, you might not change the policy necessarily, but you then issue the guidelines of how to implement the policy. That's how we do it....What it relies upon is people like me and the others you have interviewed who are determined to make the best of a bad job.

These fascinating comments relate to the trial and error nature of policy implementation in terms of technical competency. We shall revisit the implied idea of 'policy making on the hoof' and the inference that governments are willing to listen to operational managers and alter the policy design accordingly in the Conclusion.

Less optimistic, is the suggestion that there is not an even spread of technical learning. The following comments are derived from one of the Case Four actors, whose job it is now to assess other Trusts' business cases for the Department of Health. It would appear that trial and error is still the order of the day. Moreover, it would appear that learning still needs to be obtained via first hand experience.

++ GS: I mean there is a business case there with a risk factor which is just awful. I don't mean its awful in the way they have calculated it, just the end result is something which they have put into their business case and said this is the cost of risk, and you look at it and you think, no it's not, don't be so stupid.
There was one business case I got from a fairly well respected Directory of Finances who had signed this off and it said that on a projection, I can't remember precisely, but to give you a sense of scale, he was saying that on a project costing about £80m, the cost of risk was about £15 million, net present values, but that's in the construction, it's over the next two or three years.

I sent it back to him and said what you are saying is that one time out of six an act of God happens, to the building and we have to rebuild...I'm saying, don't be so silly, and he had never thought of it in those terms. So they are still struggling.

Practice appears to have an important relationship to the development of competence in learning how to implement policy. At the beginning of the 1990s very few Directors of Finance in the NHS had any experience of commercial capital accounting mechanisms.

Text units 100-112:
OM Well, at the time there was an issue around whether or not the finance directors in health authorities were actually finance directors, whether they understood enough about finance and could see their service from the point of view of stewardship: we spent this and we spent that. And whether they could think more flexibly and more business like. So at that stage you find they were recruiting a lot of qualified accountants in order to try and make that move, it would be partly right to say they didn't understand it and there weren't the skills there.

Initially, external, commercial experts were used to help managers gain technical knowledge. However, all the cases demonstrated that the actors were eventually bureaucratic in their behaviour, particularly in the sense that they continued to obey the 'rules of the game' as laid down by the albeit scanty official guidance. What did
emerge during the interviews was how the actors managed this obedience: it was managed as a means to an end; if they played by the book then there was more chance that their particular business case would be approved. In this sense due diligence was seen to happen. However, the actors were in a rather difficult situation, because it was, as we have established not always clear what the rules were.

In Case Three, the Trust gradually ascertained what the rules were, by close liaison with and the development of a relationship with the Trust outpost.

++ Text units 152-156:
D. So we put a lot of effort into managing them, as you would do a Bank Manager or whatever, because they in a sense felt they were investing in the company, in the organisation, but also investing in the individuals who they believed would deliver.

++ Text units 81-92:
R. It takes nothing, it don't take half an hour to organise, but then they sit down and we go through what we tried to achieve in the year, and they say, "have you done this, have you done that, have you done the other", "Yes we have done that", what have you done with something you mentioned a year ago, and we tell them what we have done, and we do slide show, with photos, "we said we were going to do this, and this is what it was before and this is what it is now", and they say "oh well done".

The situation was different in Case One. In his interview one of the actors took a retrospective view of his bureaucratic accountability and experiences, and in hindsight expressed his disquiet about the early days and everybody's relative lack of knowledge.
M I'm going to talk personally now. I think that about the time that all of this started to happen some of the guidelines started to change that spoke about the role and the responsibility of the finance director. I think indirectly I am pleased that the role started to change after agreement was given to go ahead and do the CRC.

M You see I've had this discussion with District Audit many a time in a slightly different way. District Audit come in to me and they say "you are not complying with the costing for contracting principles", and I say "I know".

M I don't think it was the assumptions, not testing the assumptions properly, not testing the building I think the building was oversized frankly. I think even to a degree its got pink walls, its got subtle lighting, it's done out in corporate colours, everything adds to the cost. The reception area is superb. Big wide expansive desk for the girls to sit behind. Nicely spot lit. Its a superb centre, but I am just thinking that perhaps if it was being done now it would be done in a slightly different way. There would be a lot more testing of assumptions. That's all I'm worried about.

9.3.3 The Demonstration of Affordability

Calculating affordability was arguably one of the most difficult aspects of the new policy to implement. This is partly because of its relative nature. Thus, in Case Three there was not only the need to calculate affordability to the Trust and the NHS as a whole, but also the affordability of the service to the Private Medical Insurance market in terms of the acceptability of the prices for services which were put forward.

Case Four demonstrates even more complexity because of the multiple numbers of purchasers involved and each with their own price tolerances. Added to this was the
difficulty of understanding what would happen to prices as a result of displaced market share. Reducing market share can push unit prices up because of a drop in the volume of activity whilst fixed costs remain static.

Learning by imitation and comparison was very important in Case Three. Ready made solutions were available to the Trust from United States International's previous business case. Added to which the private insurance industry publishes all its hospital prices. In effect, therefore, the County Infirmary worked backwards. They chose a price which the market could tolerate and then constructed their cost base accordingly.

The luxury of importing a solution was not possible for the actors in Case Four because never before had such a large scale rationalisation occurred within the internal market. The actors in Case Four learnt to prove affordability in a number of ways. First they conducted extensive research to supplement what information was already available; then they used some comparative data, particularly from the CIPFA database. They explored the feasibility of their approaches with the Department of Health, Treasury and outpost and hence acted within their bureaucratic roles. Overall though, they had to make assumptions; there was no perfect solution to their problems and this in itself has raised some important questions about individual and group responsibilities after the decisions were made as we can deduce from the following:

++ Text units 221-232:
BE: Yes. It has a feeling now I have to say of being slightly contrived, and I guess it felt like that a bit at the time actually. Rather than start from the point of view this is what we think the overall demand for our services is going to be in the future, both from all resident and other resident
purchasers, this is what we think the cost for delivering those services will be, and then squaring that up with income we thought was going to be available. I don't think it actually worked quite in that way. I think that's the way we are working it now, and perhaps not surprisingly its coming out with some slightly different answers.

Certainly, Case Four could not even have advanced to the affordability stage if the Trust had not used outside help like the other cases. In addition their success in completing a case which was accepted by Government was also due to the skills and talents of a few key actors:

++ Text units ???
A. It was at that point, in November '93 that we then employed the management consultants and economists to come and help us write an outline business case. And they wanted that completed within two months or six weeks, Christmas Eve. So at that point on we were very much in their hands as to what the manual said because I don't think I had ever read it, and I don't think 'Tom' had ever read it, well I'm certain 'Tom' had never read it.

In order to produce this in a way which sounded you know, would convince people up the line of our case. So that was the one rock. The other rock I was coming to was actually the other person that you interviewed, who is 'GS', who actually he clearly understood the Trust finance regime and how to put together the Trust pro formas and what was entailed and how the various lines interplay with one another and so on, and so he was tremendous at producing these and understanding what they meant and what the implications of various things in the business case were, and if necessary think how to square various circles, and so those were the two rocks, the consultants and 'GS' on which we rather rested.
Indeed, the aforementioned finance manager 'GS' acknowledged that he himself had learnt from the experts, but that he has gone on from there to increase his own expertise with suggestions for the future:

++ Text units???
GS: Have I learnt more than they knew then? Yes. Little technical things either where I have interpreted it and thought there is a better way of doing this and seen it through, little things.

++ Text units 259-266:
The alternative is that you start putting some risk analysis into the affordability calculation. That you actually start saying, I mean you already work out on the sensitivity analysis what is the effect of having 5%, why not work that out and then put probability on that happening, and then working out and adding it on as an extra cost on top of whatever it is you have worked out for affordability is what I am suggesting.

Chapter Eight explains about the importance of affordability and it is important to stress that there was so much lack of knowledge about (i) how to assess affordability and (ii) its impact. The following sections from the interviews are presented to demonstrate these points. The first narrator is from the Department of Health. He begins his statements by referring to the history of the White Paper preceding the 1990 Act and is making specific reference to understanding the theory of an internal market:-

++ Text units
A: There was also a management exercise really to do with the financing of the service, and to look at how we would change the funding from the essentially a catchment base where hospitals were funded according to their catchment areas, to one of
population base, where health authorities were funded for their resident population, and a great deal of effort went into achieving that change, which was largely a managerial exercise.

++ Text units
AM It was for them to understand the principles which we had laid out, for them to help us create the detail in a more collective way, and then thirdly for them to actually implement and put these details into practice. They had enough detail to put it into practice in a rather rudimentary form, but clearly some compromises were made. Compromise to the policy or the implementation of it in order to make sure that the service didn't receive too much of a financial shock in the first year of operation, and certain things did decidedly go awry. The classic thing about capital charges is that this was all funny money for the first few years in that we didn't make capital charges real. The capital charges were dished out by the Treasury, they were sent by Regions to Health Authorities or Regions to Trusts and Hospital Units, and then they were recovered in one great circular exercise.

++ Text units
AM Well it affected price, but actually it seemed to me that actually nobody paid, because the capital charges seemed to be separately divvied up and were held in a separate pool from the actually real money that bought the services. It was only in 1994 or '95 that capital charges became real. Then they certainly affected price and would have a real effect on investment decisions, and so on and now it has a real effect on growth and so on in the health service, because the way in which this is calculated, although we get a certain amount of money from the Treasury, last year it was 2.9% for the HCHS. In fact when you took the changes of capital charges into account it was reduced. The purchasing power remained the same, but the capital charges and it will have a significant, and certainly will doing the business case of the East Rivers Hospitals Trust, the creation of real capital charges would have a significant effect on the viability of the business plan, and of the Trust.
If we are to accept the argument from Case Four that one or two key actors were instrumental in 'creating the detail' to implement this complex policy, then the corollary in the rest of the NHS is that either this detail is diffused in the form of ready made solutions for other Trusts, or that equally skilled people are available.

The issue raised for discussion from this section concerns the degree of ambiguity and lack of detail from central government about how to implement such an important aspect of legislation. Thus, we need to ask how much bureaucratic discretion is desirable? But, perhaps more importantly, we need to ask what is the degree of allowable risk in terms of the effects on policy that the public sector can tolerate? This point will be revisited in more detail in the next Chapter.

9.3.4 Ensure Financial Viability of the Trust consequent upon the capital investment

As explained in Chapters Two and Eight, the Department of Health did not provide the Trusts with any clear definition of what financial viability meant, other than that after an investment all Trusts should still be able to meet their financial targets. This means they needed to cover all their operating costs with sufficient contract income and also be able to pay their capital charges.

Given these requirements, the financial viability of a Trust after a capital investment is, in effect, a function of the contracts it will attract in the future and the prices which it can charge for such services. The more expensive the capital investment both in terms of initial capital outlay and running costs then the more risk is involved. There is more risk because the purchasers may not be able to afford to pay higher prices than
before, given that their own budgets are capped. In this way financial viability is closely associated with affordability.

In terms of the implementation of a policy which needed proof of financial viability the problems were essentially four fold. Firstly, managers had to be able to forward plan and anticipate future volumes of work through the new capital assets. Secondly, for the business case itself, they had to give a quantified assessment of financial risk. Thirdly, and fourthly, even if the business case was accepted by the Treasury and eventually built, there then had to be a great deal of active management of marketing and even sales promotion to ensure that contracts were won.

In terms of learning how to cope with these four issues data and detail appear to have been most important. More importantly though was the ability to manipulate this data, and undoubtedly the use of microcomputing and spreadsheet technology enabled managers to begin some form of financial forecasting. The forecasting was matched with assumptions about future workload and hence they could start to assess risk, and in turn, viability.

In Case One the skills to do this were not available in the Trust and had to be learnt from outside experts. However, in Case Four they were available, and four years later were far more developed than they had been in 1991. The management consultants and accountants who helped various Trusts throughout the early 1990s acted as knowledge diffusers and often left their financial risk assessment models with Trusts in order that they could use them later or share them with neighbouring Trusts.
However, whether the resident managers in the NHS have the necessary skills to utilise the models still remains questionable and again is likely to be related to how much practice of preparing business case they have had. The following views are related to this point and expressed by one of the experts who assisted in Case One.

++ Text units 158-171
OM* Well you learn the mechanics of it. Because I still think one of the things that people are doing are simply going through the motions, but they know all the buttons to press now. The know that they have got to produce costs by year. They know they have got a discounting algorithm, they know they have got to do sensitivity analysis. They have got to do affordability analysis, they know they have to do all of that, but its done almost as if its a mechanical exercise, and when you see the information that comes out, its more the assumptions, the assumptions are almost more important than the numbers that come out, because if things change, as they inevitably will, you want to go back and revisit the assumptions and you say, what's changed, you find that that's where things are missing.

As can be seen in Case Four, the financial viability of a new hospital was highly risk laden, not least because of the large amount of capital investment. It was probably the most sophisticated case in terms of financial modelling and the sensitivity analysis. Even given this, there were still problems about the degree of confidence which was possible in the calculation as is expressed by the Director of Finance.

++ Text units 92-98:
BE* I think the Trust did as good a job as it could have done at the time, given the states of knowledge at that time, and if you look at the way they went about doing that.
So I think the problems with it were firstly, I don't think there was even a proper understanding of what the actual baseline position was, and that's been a major problem for us, so based on what we thought the baseline was, you probably could demonstrate that you could actually meet purchaser aspirations, but the baseline was totally false. The baseline was a lot higher than that.

The project accountant endorses this and adds the benefit of hindsight.

A lot of it is just due to the level of detail which went into the cost basis in the first place, that when people come back to it and repeat all the calculations that they did at the OBC level in even greater detail they find they can't cut their cost line whatever they had predicted they were going to be, and their cost estimates are not as good as they used to be.

Learning also occurred by comparison.

But you have just got to work on that, you have got to go back and say, well actually we have done a comparison of other teaching hospitals and also done a comparison of other institutions and they are actually achieving much better performances than we are achieving, and you have actually got to go through that process.

If, as has been argued, few people actually understood the process of calculating financial viability, then the question needs to be asked, what was the level of competence of those assessing the business cases and ultimately endorsing the capital investment at the level of the Department of Health and NHS Management Executive?
AM* having produced 30 volumes for the outline business case, and God knows how many there will be in the final business case, apart from a few people in senior management who crawled over some of the figures, actually having read and understood it.

'I suppose there are one or two people who were reviewing the outline business case on behalf of the Region, but they were really checking to see, you know you couldn't check the basic figures, but they could check the basic bits of the material which had to be there. I mean had there been a sensitivity analysis of X, providing you provided a sensitivity analysis of X, you know that fulfilled 80% of the requirements.

The preceding comments from a senior civil servant in the Department of Health does not offer much evidence of a knowledgeable group of fiscal arbiters. On the contrary there is some indication that perhaps all the effort, proof and rigour expended on the business cases is after all academic.

Text Units 467-477:
AM* But the quick answer is it doesn't matter because actually, even if this hospital was built, it would then be out of date in 3 - 5 years time and the East River has been there for the past 200 years so they obviously need a hospital. So all this sort of planning and these assumptions, and the rigour with which we went into it, I mean they are only assumptions, and by and large they will probably not prove to be correct.

* So, if it gets built, I think it will also change, and that actually once you have built it it will then change again.
9.3.5 Defining Need

Establishing the need for a capital investment has always been required even prior to the 1990 NHS and Community Care Act. However, there was, prior to 1991, much less emphasis placed upon the explicit measurement of such need. Indeed, if a capital investment was to replace a former service, then little proof of need had to be given as it was felt that demand for the previous service would justify its future replacement.

The pressure of capital charges and the requirements for Health Authorities to justify their contracts on the basis of need altered the previous situations significantly. The skills for assessing health needs are very well established in the NHS, particularly amongst public health professionals who are trained in epidemiology. Although it is clearly the Health Authorities' responsibilities to express the quantified need for a service, many Health Authorities fail to do so and inevitably it falls to those Trusts who are writing a business case to complete the research upon need assessment. Unfortunately, the Trusts in the four cases tended to have less experience in epidemiology. This was shown by Case One where the Trust had to use a retired emeritus professor of epidemiology. Nonetheless, the Trusts did have one very important source of data which could help to build up a complete picture of need assessment. This source of data was their past activity, measured in terms of 'FCEs' or Finished Consultant Episodes. The contracting process had greatly helped the development of data bases and as we saw in Case Three, it was possible to perform trend analysis using historical data.
Again, similar learning processes to those which have been discussed previously were used to implement this complex needs analysis. In particular, traditional research methods such as literature reviews, accessing comparative data bases and, using whatever specialist guidelines were available, were all used by the project teams to develop their knowledge base. Unlike the financial, strategic and market knowledge needed to deal with the previous themes, the Trust managers did not, on the whole, need to use outside consultants and experts to help them with the definition of need.

Their analytical capacities were stretched at times by the sheer volume of data available, particularly in Cases Two and Four. They also had to deal with the complexity of converting 'need' into the actual volumes of patient throughput which would eventually use a new facility. Nor did all this effort mean that the definition of future need would be correct. According to some, mistakes were made:

++ Text units 229-231:
M: I don't think it was the assumptions, not testing the assumptions properly, not testing the building I think the building was oversized frankly.

What appears to have happened in Case One is a mistranslation of need into demand, and ultimately into physical capacity. Another interpretation comes from the consultant accountant from Case One who is suggesting that during the process of fulfilling the complex requirements of business cases some of the very practicalities of capital planning can be forgotten.
OM: save energy. But they forgot the fact that you no longer have a window to open and you need to change the air every day. There is a bureaucracy all these hoops you have to jump through so when you are doing your work you are always thinking, well, if I am going to be talking to the purchasers I am going to make sure that I answer these issues. This is the kind of thing that the politician is going to worry about. And its because they in a sense form the bureaucracy that they all have their own agendas. They set the rules we try to meet them.

It's understanding the service. Its almost like, when you are doing finance for instance, lots of people have tried developing models, and you know you can say this costs varies directly with that activity, and 50% are fixed.

And you constantly get that, and this is the advantage of talking to people down at the bottom and getting those issues, you constantly get these questions when you do it from the top.

This reliance and belief that it is the operational managers who have access to the detail which is important for strategic planning is echoed in Case Two.

Designing the actual working areas of laboratory, then my staff were involved because they were the people who actually would be working in those areas, and there was no point in my saying that such and such can be a laboratory in which we can do such and such if it is not suitable for what we wanted to do. So they were kept informed pretty well all along the line, and brought in detail, the senior staff certainly.

The discrepancy between the knowledge base of the Trust and that of the purchasers comes out more clearly in Case Four. The financial imperative was much stronger in
Case Four and the Director of Finance's perceptions of the planning process was of a failure to unite the needs of the Trust with those of the Health Authorities acting as purchasers.

++ Text units 254-259:
E. And I was always extremely nervous about that because I didn't actually think their strategy was terribly robust and I didn't actually think that was a terribly sensible way of actually trying to plan for services for the future, just based on a balancing figure, which effectively was what it was.

++ Text units 678-690:
BE. No, that's not terribly satisfactory, as I think it leads to a lot of frustration, you have a lot of people wasting a lot of time doing things which prove to be abortive. I think that looking at the capital investment manual, I think there could have been something produced which was much more pithy in terms of what the kernel of the business case was all about, and what the key issues were, and maybe a framework. O.k. then produce some more detailed stuff for those people who need to get into it could actually look at in terms of case studies and what have you, but I actually think it was too much, too indigestible. But I think it also would have been helped had it been supported by some more specific training events etc.

An alternative view is that the managers themselves have the individual responsibility to find out how to do something and not rely solely upon official guidance.

++ Text unit 363-382:
AR. I think the thing with learning is really, if you are open to learning and you want to learn and you have got a desire to achieve something then you are just like a sponge for all of these. You just have to learn, and if you don't know you find out, and if you can't you find someone who does, and I think there is an attitude of mind that accepts you don't
know what you are doing and that you must take any advice you can and seek advice and ring up people you have never met before and say "excuse me but I'm doing this, can you help".

People like the Professor came out of the woodwork and wanted to get involved and you just learnt from them. So I suppose that's how it happened. I never actually ever sat down with a book and read anything.

9.3.6 Describing and Measuring Market Risk

The concept of market risk within the NHS is entirely a construct of the introduction of a quasi market into the welfare system. Learning how to perform a market risk analysis within a capital investment appraisal has also required the managers to have sufficient competence in the associated areas of defining need, competitor analysis and demand assessment.

The cases have shown that market risk analysis is not a skill necessarily available from marketing experts. This is because of the very specialised nature of clinical research and also because of the quasi nature of the market. It was not possible to complete a risk analysis based purely on supply side knowledge (in the form of neighbouring hospitals) nor on price signals, simply because of the degree of central government management of the market. In the early 1990s there were few external public sector marketing experts and fewer still with health care knowledge. An exception to this was within the private health care market, where for the past twenty years companies such as United States International/BMI, BUPA and Nuffield hospitals had been operating in a true health market and had built up an extensive knowledge base about how health care systems operate within a competitive climate.
Furthermore, these British companies relied upon a supply of qualified doctors from the state. Hence, these companies had built up a whole range of expertise which incorporated elements of true market competition, whilst also being sensitive to the needs of public sector clinicians.

The benefits of this knowledge can clearly be seen from Case Three wherein the County Infirmary relied heavily upon the market intelligence available from another private hospital operator and their initial investment study which had been performed for the Trust. Obviously, this data was limited solely to private practice, but the techniques which were used by United States International were of relevance to the NHS, particularly the use of Geographical Information Systems (GISs). These helped to show how a hospital could position itself vis a vis its competitors, in terms of price and relative reputation.

On the other hand in Case Two, market risk was assessed by using very local intelligence about competitor hospitals. The Trust relied entirely upon the knowledge of their pathologists in this area. The information was gathered in a piecemeal way and was not easily available from a single source. Comparative information sources were helpful, on the other hand, for Case Two, particularly from the commercial laboratory JSPS. There was also data available from the Audit Commission reports. In this way by using various sources, the Trust put together a jigsaw of information about their competitors in terms of relative price, customer satisfaction and the quality standards of pathology services within Surrey.
The fragmented and time consuming nature of this exercise is a very good example of the lack of understanding on behalf of central government of what is actually involved in defining market risk for a capital investment project. Quite apart from the issues about time and resources, is the issue of accuracy. It is the assessment of market risk which, along with need assessment, demand analysis and affordability, will eventually shape the size and type of health care facility which is built.

Some good examples of learning by comparison are revealed in the following comments from actors in Cases Two and Case Three. In the first narrative example, the actor in Case Two, Stella, is actually referring to a previous investment appraisal which relates to radiotherapy services which I did not observe. However, in this earlier example, the Trust also used comparative information to teach themselves.

<+ Text units 263-272:
S: I remember vividly with the radiotherapy one that we did have various reports and Steve and Roy had done a report for someone else, that we could forecast the way the work was going to change, the way the treatment patterns were going to change, and obviously we had got all the demographic detail, and there had been published reports by the Government on incidence of cancer throughout the various regions of the country, and we could say whether we had higher or lower incidence of some types of cancer.

Whilst the above is not directly related to establishing the exact market risk it demonstrates the amount of work required to build up the pattern of information necessary for a full market risk assessment. Of particular importance is the future impact of new technology and demographic changes also need to be taken into account.
In Case Three a similar comparative process was used, this time involving a trip to another private unit to assess their approach to the market.

++ Text units 9 - 13
D We went over to a meeting and saw the private unit and they said to us that this was a major source of income, income generation, and we should consider it here. So I came back and because I met the United States International people when I was over at Chesterfield, I invited them round to have a look.

However, this imitation of other's approaches is in itself insufficient and like the local intelligence collected in Case Two, the actors at the County Infirmary also had to use local views and opinions to build up their picture of potential market risk.

++ Text units 43-62
D The crucial thing for United States International of course was the consultant medical staff, because they were the people who would bring the patients into the unit. Bearing in mind that they already had customer loyalty to GBIH.

D And then there was a debate about how much business there was, it was important that they talked to the doctors. So they arranged a couple of meetings with doctors that I went to, and they explained their position, and a number of our doctors were very interested, not least of all those that had been newly appointed, because they didn't have the customer loyalty to GBIH, and some of them felt that they were being frozen out of GBIH by the existing consultants who wanted to keep the department to themselves. The other thing was that some of the younger ones, wanted to do bigger stuff privately, and couldn't do it in GBIH - no intensive care and all the rest of it, so there was keenness on both sides.
Miscalculations of the market can be made. In Case One there was an assumption that the Clarence Centre would become a specialised unit for the whole of Kent. Hence, the demand assessment calculated that future referrals would double the current number of contacts because there were no other competitors in this field.

After the Clarence Centre was built a post implementation analysis demonstrated that the assumptions had proven to be too optimistic and in fact other local units were expanding in a piecemeal fashion. Even in the early stages of the planning of the Clarence Centre there was a belief that perhaps the physical plans were too generous reflecting the assumptions of an increase in referrals, but that because of the political importance of working with the Education Authority dramatic decreases in the size of the facility could not be achieved.

++ Text units 192-204
A. It really was enormous, anyway my brief was to make it smaller, so work both with internal professionals, my own colleagues, and education was all geared to making the huge rooms that they had all planned for themselves to negotiating them down to something realistic and education was no exception to that, and that was before 'GT' came aboard, and at an individual, at a very low level I found those negotiations quite difficult because whilst I could get Joanna to impose things on our own staff, I didn't have any similar authority over education staff, and so the perceptions of my staff or my colleagues was that education were always winning, whereas speech and language therapy had been whittled down to only a 14 sq. ft. room.

Undoubtedly, the technical assessment of market risk was most difficult in Case Four, although, at the same time this case had the benefit of developing its investment
appraisal later in the life cycle of the internal market; more information was available and the hospitals had access to considerable external expertise.

The learning processes in Case Four mirrored some of those seen in the other cases, particularly learning by comparison and using published guidelines. The data from the Tomlinson Report was invaluable to them, as were the Trusts contacts with the NHS Executive which helped to clarify particular points. Nonetheless, they did face considerable challenges, mainly because they were dealing with so many diverse purchasers, and they were providing local, secondary acute services and tertiary services both of which have very different market risk profiles.

++ Text units 72-84:
BE: So that was quite a salutary lesson, and I think it was quite clear that one of the main areas of focus for the business case here was trying to understand in a fair amount of detail really, what the nature of the demand for services provided in the trust was, what the referral base was, where those referrals were coming from, what particular market they actually fell into, whether it was local acute services, whether it was tertiary referrals, and what the longer term expectations were, based at that stage I guess, on what was a relatively crude idea amongst purchasers themselves as to what their longer term intentions were.

++ Text units 162-173:
BE: I wouldn't claim that Trusts totally understood and knew, as there were gaps there, but they certainly knew and understood the process far better than the purchasers, and the whole process was driven down the Trust route, it was the Trust that had to produce the business plan, the Trust that had to jump through all these hoops and get over all these hurdles in getting approval and all these tests, and nobody could see where the same rigour was being applied on the Purchasers side. Who was overseeing purchaser's strategies? Who was ensuring
purchasers had well developed strategies? Who was ensuring that those strategies did in fact dovetail into Trust business plans?

A key element in how the actors in Case Four dealt with analysing market risk in such an uncertain environment was by using computer based scenario modelling as explained in the case study. They were able to successfully use hospital data and purchaser data and integrate this quantitative referral and activity data with GIS maps of all of their catchment area which showed competitor Trusts. In this way they built up a whole range of different scenarios of the future size of a new hospital which could be costed and assessed against a range of affordability tolerances.

The preceding six sections have described in detail how the actors involved in implementing the policy initiatives of new capital investment appraisal in the NHS dealt with the specific problem areas involved. The remainder of this chapter now presents a summary of the processes which were involved in the implementation. It then goes on to discuss the novel findings which this research has produced.

9.4 Implementation Processes

As initially suggested in Chapter Eight from the analysis of both the case studies and the interviews with actors, there are four broad processes which can be identified as being key drivers for the enactment of policy into action. These are:-

(i) Learning processes
(ii) Bureaucratic processes
(iii) Group Processes and
(iv) Information processing
Each of these will be discussed in turn.

9.4.1 Learning Processes
Three subcategories of learning have been identified from the cases and interviews, namely, mechanical, cognitive and behavioural processes. New ways of 'doing things' happened, especially in respect of learning how to operate and understand the mechanisms of the capital charging system. Such mechanical learning also lead on to cognitive development. This was demonstrated by individuals who defined their understanding of the capital charging system in terms of their own cognition, i.e. what it meant for them and their departments. The PC based modelling system also allowed individuals to receive immediate feedback to test the validity of their learning.

There was also other evidence of cognitive development. Many of the project team meetings devoted time to the discussion of how individuals understood the impact of the investment in terms of prices, competitor position or technical detail. As such, they were reflective and re-interpretative which led to the development of new sets of rules by which to assist in the presentation of a successful business case.

A higher level of learning occurred within the teams, if Fiol and Lyles (1985) definition of peoples' ability to make and determine choices is used. The team's response to the need to address the issues needed in the business cases could be described as lower level, since it was 'problem correction' oriented. However, the way in which they responded demonstrated facets of higher level learning in that the team
had to have a causal understanding in order to produce an effective solution and approach. The approach was effective by not only their own criteria but also in that each of the four cases received Treasury approval for capital investment expenditure.

All the cases demonstrate a high level of technical incompetence in respect of capital accounting techniques and demand forecasting. The type of mechanical learning which occurred was initiated by using external experts who were trained as investment accountants, economists or management consultants.

Their knowledge was transferred to the actors by imitation and replication by tuition and coaching using in particular protocols e.g. discounted cash flows. Importantly, the knowledge was 'stored' within routines laid down within interactive PC programmes such that, once the experts had left the various Trusts, the technical knowledge was recorded. It would though appear that the diffusion of this knowledge was limited to the project team. In some ways this is surprising given that those members of the project teams took upon themselves the roles of teachers to their own staff and colleagues but only when another business case was required.

In Case Four, because the Trust is so large, there are now many smaller business cases which need to be completed. The Trust Board decided to allow the cases to be completed at directorate level, but it would appear that such delegation has only been partially successful.

++ Text units 607-616
BE I don't think they can do the financial modelling to the sort of level, we need but that can certainly be done for them. But I think the broad thing about thinking about the options, examining the options,
looking at the costs and benefits, I think a lot of that work has to be done within the group. I think you might have a point actually, I hadn't really thought about it, maybe we have gone a bit too far in expecting it to be done.

There also appears to be the worry that lack of practice may mean loss of skills.

++ Text units 340-346:

GS: And the other thing which is an observation is that when you do get someone who has actually done it and completed the project, they will probably never do it again in their career, so you train up these people to do something which they are learning by trial and error and making mistakes, and then you are not asking them to do it again, and it just seems daft.

Similarly, in terms of allowing the 'experts' to carry full responsibility for the business cases is also unsatisfactory in terms of keeping a repository of knowledge within the Trust.

Given the methods used within this research, it is less easy to be as clear about cognitive learning. Nonetheless, through observation and interview at least there is some evidence of a change in expressed reasoning about the various learning challenges facing the actors. Certainly, in Case Two, the ways in which the market risk for the investment was established appeared to rely as much upon intuition as upon quantifiable data.

Similarly, in Case Three, it was the fact that Roy and the Chief Executive 'felt comfortable' about doing business with GBIH which then enabled them to acquire
knowledge about commercial health care and the differences this needed in terms of demonstrating affordability.

The following quote from Case One emphasises the role of intuitive reasoning in learning: interestingly, the final sentence of this paragraph juxtaposes these less objective approaches to completing a business case with the capital investment manual.

++ Text units 404-412:
M: It feels wrong. I think that some finance directors are having to use their intuition they are having to use all the things that they have been given and they are using all their little senses, they are using their feelings, they are using staff, they are using gossip, they are using anything that God's given them to try and listen to things, to talk to people to try and find out what's going on. And they can go down and look at things. I think people are going out to look at things to see what's going on. There is some guidance in the book.

The idea that cognitive learning may have happened because of self reflection upon practice is emphasised by one of the consultant experts used in Case One. The high level of self consciousness about personal development is not unusual in those people who have been involved in intensive project work.

++ Text units 283-290:
OM: Basically what happens is that you are always asking yourself questions because, when you work in strategy you are always saying to yourself, what are the strategic issues, what are the questions I have to answer. And if I have to answer these questions, what are the things that I need to do and in trying to give more and more every time, something you may
have done at one level before, you go to a deeper level as information becomes available.

The clearest evidence of behavioural learning was in terms of how the project teams responded to the requirements of the Capital Investment Manual. The manual had a dual role, on the one hand it was advisory in respect of providing guidance of research results as an expression of best practice. On the other hand, it had a mandatory role in that its minimum requirements had to be met before a Business Case could be considered by the Treasury. It had though varying degrees of success and in part this is probably due to how it was originated, as described by one of the civil servants involved in its drafting.

++ Text Units 239-268
AM: I think it's instructive that in terms of developing and implementing the White Paper, 'Gordon' was Chief Executive, but the two people who had most influence on implementation were 'Sylvia' on the finance side, only she really understood it, she really understood it and was probably the only person who did, but it was her job to try and explain to other people, started to increase their level of understanding of managerial and financial competence and so on, and the other one was actually 'Sydney' on the management side of the management and getting the managers to play alongside.

AM: Yes, well, it seems to me that we rather learnt together, and I certainly didn't bring any special expertise, as I have said, I'm not sure I ever read the investment appraisal manual or whatever, I didn't write it. But when it came to how to present outline business cases, I think I did flip through it, but I couldn't really say that I actually read it.

AM: I think that the two rocks which we rested on were really people from the consultancies who clearly had read the manual. In a sense that's one
of the reasons for employing these people. I'm ashamed to say that when we were asked to produce a business case and to merge the trust, there was 'Tom' and myself and this other chap, and we were trying to organise to get together a Trust application and consultation document and all that kind of thing, management politics within the Trust, and then you are asked to produce plans for the business case.

++ Text Units 341-351
AM: The capital investment manual revision was done from the centre. But they also had I seem to remember there were workshops and seminars on what it actually meant. Then other people who understood it were called upon to crawl over it. Unfortunately it was a bit of a battle of management consultants and various small politics with a small p about that, where probably the only people in the end, probably the only people who had read the manual and had understood it and could act upon it, were the two set of management consultants who were being employed one to write and the other to review the business case.

There seems to be little doubt that the managers in the NHS wanted guidance particularly in respect of technical issues.

++ Text Unit 395-408
AR: I think EL letters, there are two sorts aren't there, the ones you have been waiting for, for ages because you need guidance on something. The ones you have waited for the Department of Health edict on this for most of your life because you need someone to tell you what to do. And then there's the ones that come out of the blue unannounced and no desire for you ever to see them in the first place, and you can hardly be bothered to read them. Those are the two sorts, and the ones you have been waiting for or the ones the minute you see the heading you see an immediate applicability to your sphere of influence you read and inwardly digest and you make sure you file them carefully so you know where to find them.
++ Text Unit 415-422

AR: Well I mean it is. I don't think anyone, well maybe they do, I don't know, I don't think that many people read every word of them and inwardly digest it. Unless, you've been really dying for this particular one, you really need it in order to move forward. I think on the whole you read the beginning and the end and take in the main message, executive summary or whatever, and then you know where it is should you need to consult it, but there are some you know you will never need to consult.

The preceding commentaries raise the question of whether more detailed guidance might obviate the need for NHS managers to use outside help. It also leads us on to the issue of what role bureaucracy played in the implementation process.

9.4.2 Bureaucratic Processes

Three specific bureaucratic processes have been identified from the data as being important in the implementation of the policy which was studied. These are (i) bureaucratic obedience, (ii) the exercise of discretion, and (iii) personal and departmental accountability. Obedience has been interpreted were 'as doing what you are told'. It was one of the extraordinary legacies of the Thatcher era that the only real sign of both professional and potential civil unrest happened in respect of the miners' strike and the introduction of the poll tax. Comparatively speaking the revolutionary changes within the NHS could have had, and in some instances have had, equally far reaching effects as the end of mining in Britain and the changes to domestic taxation. However, except for a few mild protests and some cases of whistle blowing, by and large, NHS managers and practitioners have carried on. More importantly, it is they who have been the agents of implementing government policy. They have been the agents of action rather than Whitehall civil servants.
The conduit for initiating such action has been in the main, been in the form of guidance from the NHS Executive, Executive letters, examples of best practice and of course in this case the whole Capricode Capital Planning System together with the Capital Investment Manual. A very interesting paradox is, that despite having the weight of government instruction, all the preceding guidance was as lacking in detail as the 1990 NHS and Community Care Act was ambiguous. Consequently, the NHS managers had to use their discretion to fill in this detail and convert the policy into action. What is perhaps one of the most interesting findings of this research is, that far from preventing action, this use of discretion and the potential for personal and local interpretation of the policy was in fact very motivating.

It has been difficult to discover why the managers were obedient. It could be argued that they wanted to keep their jobs in a very tight job market. On the other hand, it could be argued that they had a high level of personal and professional commitment to getting approval for their business cases and that the best way to achieve this was to play by the rules as laid down in the guidance. There appears to be evidence to support both suggestions.

In Case Three, Roy was driven to conclude a deal with GBIH and to have as much supporting data to justify his proposals to the Trust Board because he did not want to appear incompetent in front of them. He did not seem to consider that, in effect, he had more technical knowledge of the project than all the Board and in reality was in quite a secure position. In Case Two, the Goodwin managers had already completed a previous business case for Oncology under the new rules. They knew the potential
pitfalls and routes to success, and were quite happy to meet the Departmental and Treasury requirements, no matter if the really difficult strategic points about the over provision of pathology services in neighbouring Trusts were ignored by the Regional Office. At the Goodwin Hospital they were not inclined to make a principle out of a point.

The following two abstracts from the interviews also demonstrate the different motivation towards obedience. In fact, this 'obedience' assisted some of the managers in their learning; a great deal of effort was put into finding out what was required for a successful approval of an investment by the Treasury.

++ Text units 699-714: 
BE: Probably the biggest help has been understanding what they are going to be looking for when it gets to the stage of actually submitting. I think that's probably the key around business cases as well, I think if there was, you know, despite what all the manuals and what have say, I think the bit that you really need to understand is what do the Regional Office actually do with this business case when it is submitted, what are the criteria that they are using to assess this, what specifically are they expecting to see, and I guess that's what specifically they are expecting to see, and I guess that's the most important. And I think probably its fair to say that there is a need and a consistency, its very difficult even to learn from experience, because you might submit one business case and get a whole load of questions and comments thrown back, but there might be a completely different tack to the next business case, so even that's difficult.
This desire to play by the rules stretches beyond technical competence towards developing contacts and an understanding of the personalities of the decision makers in the hierarchy.

The following insightful comment might also help to explain the obedience. As are the suggested reasons why such a break from obedience might be problematic.

++ Text units 716-722:
BE: It's difficult to test and challenge the system, I think that's difficult actually. No I think that is difficult, I think a lot of us find that difficult. I think there are times I guess when a lot of us would want to do that, and there are times when maybe you can do it, but its not easy.

++ Text units 724-738
BE: Well its not easy because I think, a number of reasons, firstly I think you instinctively work on the basis of trying to maintain good working relationships, particularly with people like the Regional Office. Because they are, actually, at the end of the day, quite influential in terms of messages which get fed further up the chain, and there is no doubt in my mind, and its just human nature, its nothing to do with bureaucracy, its just human nature, and I think if you continually upset the Regional Office and challenge what they are doing, that will undoubtedly impact back on you at some stage, whether its on the basis of them being perhaps less sympathetic than might otherwise be the case when you have got a particular financial operational problem, or whatever, but it does influence.

++ Text units 747-755:
- The second reason, I guess deep down we all have concerns about careers and what have you, and even if the person you are dealing with is relatively junior at Regional Office, messages get passed up, whether you are in the right or they are in the right, and its about reputation and that does count for a lot when you come to apply for your next job.
and you might find someone, perhaps the Regional Director or whatever on the interview panel, so these things do get noticed actually.

It is difficult to pinpoint specific examples of the exercise of bureaucratic discretion because the lack of detail in the policy was such that, in effect, discretion was continuously exercised by the actors.

There was also an interesting range to this discretion in that it varied from the philosophical to the technical. For instance, in Case One, because this investment occurred immediately after the Act was passed, the managers at Dale had to use their discretion to interpret what exactly 'an internal market' meant. Whereas, in Case Four, by 1995 the internal market, had been well defined and the exercise of discretion was focused much more towards technical issues such as defining and measuring affordability.

The observations showed that the actors exercised a form of 'informed' discretion. Thus, much of their efforts were focused towards matching the requirements of the Act and Capital Investment Manual and filling in the missing detail. This they did by reference to outside experts, using published experience and guidance from bodies such as, the Kings Fund, The Audit Commission and academic articles. Interestingly, they seemed less willing to revert to previous professional led solutions, perhaps because these had very little bearing on such a new situation. None of the interviewees appeared surprised by the need to exercise such high levels of interpretative discretion, to them it was what being bureaucrat was about.
Well the direction was set, policy was set by the powerful decision makers, the rest of us made it happen. Whatever was in the way of it happening we found ways of getting round it.

The process of bureaucratic accountability is related to both bureaucratic obedience and discretion. Interpretative latitude was not seen as freedom without responsibility. Again, it was difficult to understand precisely why actors felt so responsible. There is the possibility that it was for the same reason that they were obedient: i.e. to keep their jobs, or the instrumental argument: if they did as required there would be positive benefits in terms of approval for the business cases. These arguments are more feasible for obedience, but in terms of accountability there appears to be a further argument - that of being a public servant - of having a collective responsibility such that an actor's own work will have an impact not just on their colleagues, but the public in general:

It's, I'm trying to think of the right word, it's I do think it's very important, and I take it extremely seriously that I am a public servant, and that I have responsibility for enormous amounts of money, and important decisions which influence a lot of people's lives. Particularly where we are at the moment. And the nice thing is that along the corridor here there are other people that feel exactly the same way. There are two of us anguishing over whether what we were about to approve for a mental health business case was actually the right thing to do. Right back to absolute basics of was it the right thing, and was it a good use of public money, and is there a better way to do it.

Much of the formal accountability, particularly in terms of post implementation audit, falls upon the Directors of Finance. Consequently, some of them, as the one below
from Case One, now feel that they have to become involved in project management to safeguard their position and responsibilities.

++ Text units 314-326:
M: In so far as I feel that, this is personal again, I have done nearly 20 years in the NHS and I have no intentions of falling over and making a mistake that someone can criticise me on, and I am a bit worried about some of the guidance that comes down which says its our responsibility to do this, our responsibility to do that, and I understand why some of my colleague finance directors meet with project managers on a weekly basis. But when I hear about it I must admit I raise my eyebrows, because I think that some of these tasks are so far removed from finance directors jobs.

++ Text units 342-3456:
Sometimes I think to myself why do we have a facilities officer in this place, but I just say I think its a bit removed from a finance directors job. I think finance directors are getting a bit worried about some of the guidance that has come down and said its their responsibility to do a, b, c and d.

The results which have been presented portray a picture of busy, strong public sector managers trying their best to fulfil policy requirements and taking individual responsibility for their technical development and learning. There is though an important element which assisted all this activity and it is the use of a project team structure. The following section discusses some of the group processes which occurred within these project teams and which on the whole acted as a supporting mechanism to the actors' attempts to implement.
9.4.3 Group Processes

The observable organisational structure within the case studies were project teams, and these served to encourage learning, mainly because of team dynamics and the feeling of partnership and co-operation in 'adversity'. This element of 'adversity' had come about because team members had no choice but to learn how to implement the requirements of the new Act in terms of capital investment, if they wished to benefit from new facilities.

Compared to the project team structures used prior to the internal market requirements and, in particular, the advent of general management, the very structure of the new project teams was also a break with existing tradition. They were not representative, had complete executive authority, were much smaller and worked to a more detailed, and foreshortened timetable and deadlines.

Behaviourally, some pre-existing norms and traditions were broken. This aspect was particularly marked in respect of the individual response of the clinicians. Their concern with their own speciality was diminished in favour of the impact of the investment on the institution as a whole. Similarly, there was a tacit acceptance by the clinicians of the strategic direction as defined by the general manager. Overall, there was a much greater feeling of a willingness on the part of the clinicians to accept not just clinical but also managerial and financial responsibility for their decisions within the group.
Added to this was the effect of having some members of the team who were not employed by the NHS - such as the external experts and design consultants. This meant that these people brought to the group no tradition of status based on professional distinction and this helped to neutralise the creation of boundaries. Consequently, there were fewer behavioural barriers to learning such that individuals interacted and shared their own understanding with colleagues regardless of role.

There were specific roles within each group and these were largely determined by professional category, knowledge base and the allocation of tasks by the project team chair. Relationship boundaries were not externally defined but evolved and their expression played an important role in terms of collective and majority influence, alliances and control of power and resources either via direct influence or by bargaining and negotiation.

As explained in Chapter Eight, the observation of group processes was greatly influenced by the wide range of group and team process theories available from social psychology. However, the following taxonomy has been used to describe the processes which were observed, namely:-

(i) High level of consensual validation and group think.

(ii) A negotiated order between clinicians and managers.

(iii) A high level of experimentation, and use of trial and error.

(iv) The influence of dominant individuals either as leaders or teachers.
In all the case studies, when one or more member suggested an approach to solving one of the problems, whether it be a strategic or technical issue, then it was invariably accepted by the other team members. This was particularly marked when a solution was put forward by one of the external experts. Thus, particular solutions became validated by the overall consensual support of the group. During the observation it appeared that one of the reasons for this was the amount of intellectual and time pressures which the groups were under. Thus in Case Two, there were a number of ways in which costings for pathology tests could have been constructed, but when the preferred methodology was explained to the project team, there was very little critical questioning of its robustness, no doubt because at the same meeting the project team had another two different problems to solve. Thus satisfier solutions became matched with a large element of group think.

There was evidence of a negotiated order in all the cases between clinicians and managers but particularly in Case Four. This may have been because of the managerialist culture but I would suggest that it had more to do with a temporary redefinition of relationship boundaries, professional status and knowledge alliances. Each person on the project team had some very specific sets of knowledge, techniques and intelligence to offer, consequently, team members became mutually dependent on each other.

The level of dependency was very high in Case One because actors were less confident about all aspects of the new capital investment when compared, for example, to Case Four. Even in Case Four, where there was such a long history of
clinical demarcation, there was still a high degree of mutual co-operation, derived from mutual dependency. Arguably, this resulted from the overall lack of confidence of the project team, because of the absence of detailed guidelines about important issues, such as the consequences on the hospital of potential changes in market share.

The very high level of discretionary decision making within the project teams also meant that there was a large degree of trial and error, but as was explained previously, once a suitably correct solution was identified it tended to be adopted. In Case One there were several attempts to define need amongst the childhood resident population for the specialised developmental services on offer at the Clarence Centre. Team members were very supportive to each other in terms of positive comment about all suggestions to define need and were willing to try unorthodox approaches.

Similarly, in Case Three, the project team managers at the County Infirmary were keen to have a robust set of assumptions about their investment before they met to negotiate with GBIH. They were less confident of a mutual problem solving approach from anyone outside of the project team.

As might be expected, each of the cases demonstrates the influence of a dominant personality within the context of the project team. There is little evidence to show that this dominance continued outside of the project team because actors were only observed in the team setting. In Case One, the Chief Executive was dominant even though her attendance at the team meetings was sporadic, she had an enormous impact in terms of the final choice of options and the negotiations with the Local Education Authority. In Case Two, this dominance was less obvious, but the director of
planning and contracting led and guided the team in a low key, but effective manner, and ensured that tasks were completed on time. In Case Three, the influence of Roy as Director of Operations, was clear both in terms of competence and personal charisma. He motivated his subordinates to finish their allocated tasks and acted as the key point for negotiations with GBIH. Finally, in Case Four, for the project as a whole, the external economist carried a huge influence both in terms of her knowledge, and character. In this Case it was particularly difficult to isolate the influence of the Chief Executive, again because he very rarely attended meetings but he did ratify or veto decisions made at the overall project board.

In processural terms, these individuals acted as team motivators and leaders, as could be expected. They also acted as teachers and diffusers of knowledge. Their roles were marked, not by their desire to withhold information for power, but, on the contrary, to share solutions and information in order to get the job done.

### 9.4.4 Information Processing

Four stages of information processing were observed from all four cases. These were the collection of hard data, its sorting or collation, its analysis and finally its presentation. The majority of information was in the form of quantitative data and the major challenge to all the actors involved in its collection was accessing the varied, diverse and sometimes incomplete sources. Thus, in Case Four, much of the hospitals' activity data was held in a computerised form which was easily manipulated on disc, whereas in Case Two, there were nearly ten different sources of data relating
to pathology tests. Some of this data was held in a manual form and involved a great deal of transcription into a computerised format in order that it could be modelled.

It is difficult to imagine how the relatively sophisticated demands of the business case process within the NHS could be achieved without the advanced data modelling capabilities afforded by PCs and relatively easy to use spreadsheets. This is especially the case in respect of the requirement to 'define need' and 'measure market risk', all of which depended upon modelling ranges of activity and probability.

Data presentation was an equally important process. HM Treasury, the Trust Boards and the Outposts of The NHS Management Executive were all presented with summary business cases supported by extensive working papers. These summary cases needed to convey quickly and succinctly the very complex calculations and assumptions used to design the case. Once again, the combination of statistical and graphics packages which are now available on PCs assisted in this presentation.

The information processing also aided knowledge and skill development. Each of the project groups in the cases developed a formulaic approach to working out and representing the financial impact of the investment on not just the potential purchasers for the new services, but also the impact on the Trust as a whole. This was achieved by constructing a series of interlinked spreadsheets containing base data of capital costs and charges. It was then possible to feed in a variety of other variables to develop a sophisticated sensitivity analysis. Similarly, each of the trusts' accounts were downloaded onto the project teams' PCs using a series of pro formas to represent

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accounting activity. In this way the impact of the investment could be fed into the overall accounting mechanism.

Knowledge representation was expressed in the form of Lotus 123 spreadsheets and, whilst undoubtedly the external accounting and economic analysts facilitated this representation at a technical level, each of the team members had contributed the information, data and opinions which made up the spreadsheets. The results of the sensitivity exercise were then shared with all team members and each team member was able to follow a particular prescribed routine to feed in any alterations in the variables which they felt to be important. In this way all the team was able to have access to the results of the modelling of their decision. Such an approach was particularly helpful in that it was able to be replicated for any given project, given a change in base data and key variables.

9.5 Novel Findings

The results from this research project, which began by asking: 'How do public sector managers implement new public policy?', has produced six new findings to complement the existing body of knowledge on Implementation Theory. The six novel themes which have been suggested from the data collection and its subsequent analysis are:

(i) Learning
(ii) Bureaucracy and the bureaucrat
(iii) Structure
(iv) Motivation
(v) Time

(vi) Detail

The following chapter, Chapter Ten, discusses how these six themes are inter-related and incorporates them into a processural model of implementation and into a suggested 'Theory of Learned Implementation'.

However, it is helpful to summarise from whence the six categories have been derived. Figure 9.1 itemises the analytical categories derived from NUD.IST and the interviews, and these have been linked with the Dendograph categories derived from the analysis of the four cases.

Figure 9.2 displays how the two sets of coding and categories have been combined from the NUD.IST 'nodes' to produce the six headline or main novel findings.

It is suggested from this research that public managers need to learn to implement new public policy. They do this in a variety of ways which involves developing their knowledge and competence. Their learning is at one and the same time bounded by bureaucracy and enhanced by their roles as bureaucrats. The structure of project teams enhanced their learning by providing a suitable framework for task completion and later, task routinisation.

There appeared to be an important temporal element to the implementation of policy: time is a key variable in learning and learning increased over time and through
experience. Time also allowed knowledge and competence to be diffused amongst the managers. *Detail* refers to the myriad activities, processes, information and tasks which were invented and designed to operationalise the policy. *Detail* provided the translation from policy to action, but it could not occur without there first having been learned.

Finally, this research has provided some initial findings about *motivation*, in terms of bureaucratic discretion, work autonomy and the novelty of new policy being positive motivating factors not only relevant for learning itself, but also in terms of task completion and the operationalisation of policy. However, given the methodology used within the research, it is suggested that the whole area of bureaucratic motivation is worthy of further research.
Figure 9.1: Analytical audit derivation of 'novel findings'

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Capability data

Stakeholders

Timing

Peripheral rules

Actors

Structure

Detail
Figure 9.2: Inter-linkages between 'novel findings' (NUD.IST) and related categories
CHAPTER TEN

DISCUSSION AND THEORY BUILDING

10.1 Introduction

In the previous chapter, six novel findings were put forward as the results of the field work and analysis from this research. In this chapter these findings will be assessed against the established knowledge within Implementation Studies and against the established literature relating to bureaucracy and organisational and policy learning, which were explored within the earlier literature review. The chapter then goes on to explore the role which operational detail plays in turning policy into action. Finally, it presents an initial model of 'Learned Implementation' which is designed to show the inter linkages between the novel findings and how these fit into a wider model of the policy process.

10.2. The Contribution of Novel Findings to Implementation Studies

10.2.1 Learning

It would appear from both the case studies and interviews that the acquisition of knowledge is the starting point for learning. As has been suggested previously, the actors obtained their knowledge in a variety of ways. Initially in the form of guidance from the Capital Investment Manual and from further instructions from the Department of Health and NHS Management Executive. However, the research has demonstrated both within the case studies and during the interviews, that the actors still had a problem of technical knowledge despite the guidance notes. In all the cases, the NHS actors had to learn from external experts in the form of accountants or economists. These were experts who drew their own knowledge from private sector
capital accounting. Hence, in a rather indirect way, the government had in effect achieved some policy-outcome congruence in the sense that private sector investment ideals were being used in the design of NHS capital investment. This was precisely one of the objectives of the Business Case changes as a result of the 1990 NHS and Community Care Act.

We already know from other studies of micro implementation referred to earlier (Scheirer and Griffith, 1990; Nixon, 1980) that written instructions and detailed guidelines are important if policy is to be enacted. However, in respect of learning from experts, the literature is silent. The nearest to such a suggestion comes from Rose's work on lesson drawing (Rose, 1991) and Schneider and Ingram, (1988) on inter-governmental 'pinching of ideas'. There is, though, little indication in these works about the initiation of knowledge; in my findings knowledge initiation came about through a mixture of guidelines and expert tuition.

A further, very interesting point from the findings relates to the fact that the knowledge was retained after the external experts had left the case sites. Indeed, the knowledge as was learnt from the interviews went on to be enhanced and refined. I would suggest that this knowledge retention was achieved by routinising the solutions to the particular learning problems posed by the requirements of the new Business Case guidelines. In turn, these solutions actually formed the basis of the operational tasks required to implement the policy. It could therefore be argued that it is at this point that policy becomes action - at the point of operationalisation of the task.
Once the 'know how' was established, via tuition from the experts; following guidelines and learning 'by doing', then there was evidence of diffusion of the knowledge. In part this diffusion of 'know how' happened because of the tightly knit community of Capital Project Managers, Chief Executives and Finance Directors who meet at seminars and conferences and who help each other solve problems whenever they are faced with new investment appraisals.

Throughout the period of observation, it became apparent that once a successful approach to answering the requirements outlined in Table 7.2 were found, the same approach was used again for other business cases. Thus routines were established; these routines were in some cases formalised into internal guidelines, or they were stored as procedural memory by the individual actors who had developed the new technical and cognitive capacity.

These findings support similar suggestions within the literature on organisational learning, but not necessarily on Implementation. Hence, we already know from Weick's (1991) suggestion that organisations in reality learn in the sense of 'different stimuli: same response' approaches as opposed to the deep learning of 'same stimulus: different response' (which would be more innovative).

In a sense the researcher should not be too surprised by this: the evidence shown in the four case studies was that solving the problems and finally producing a business case consumed vast amounts of intellectual, emotional and financial resources. Therefore, once a solution was found to producing an effective business, why reinvent the wheel?
It is sensible in terms of efficiency to routinise these solutions and to have the same response in different cases.

These findings present us with something of a dilemma. On the one hand there is the idea that task routinisation assists implementation: on the other hand this very task routinisation leads to a type of learning more akin to March's (1991) exploitative rather than explorative learning (Chapter Five). Such learning leads to reduced diversity, more homogeneity and one might therefore assume less innovation. I would argue that the actors' innovative capacity was all but exhausted by the time they had their solution: they simply had to complete the task in hand, i.e. produce a business case.

Part of this dilemma may be due to an over emphasis within the organisational learning literature on cultural change within organisations. Such change involves alterations to values and belief systems as suggested in the work of Pascale (1990), Senge (1990) and even to a certain extent Argyris and Schon (1978). Double loop learning is implicitly suggested as the more preferable type of learning whereas single loop learning is conveyed as a failure to learn 'properly'.

In effect, this discussion really is about a question of emphasis and I would suggest that much of the organisational learning literature has not been researched within public service bureaucracies. The actors in this research had had cultural change imposed upon them: the New Public Management had become their organisation's new values and belief system: their learning was about how to deal with the
consequent procedures necessary to fulfil these values. In organisational learning terms, they were working backwards - from the double loop learning of value change to the single loop of technical competence.

Such a suggestion raises a very important point about the degree to which being a bureaucrat influenced how learning was achieved and policy implemented. Throughout the whole five year period of field work, there was never any suggestion that the actors involved would ever do anything other than try their hardest to make sense of ambiguous policy and design the detailed tasks needed to put it into practice.

I have interpreted such behaviour as bureaucratic obedience. As a concept it is discussed in more detail in the following sections 10.2.3 and 10.2.4, but in respect of learning I suggest that bureaucracy facilitates learning mainly because there is a mixture of coercion and necessity. If the actors did not learn how to implement the policy, they would fail to win approval for their business case and both their professional and personal reputations would be affected. A rider does, however, need to be added to this last argument because such an argument depends upon understanding about bureaucratic motivation and more research needs to be completed in this area.

Overall, I would argue that it is 'know how', as opposed to 'know why' that has enabled policy to be implemented in these four cases. In this respect, the work of Cook and Yanow (1993) comes closest to providing a similar explanation. Their work was about tacit knowledge and it has been one of the advantages of the methodology
used in my research that it has allowed the creation of tacit knowledge to be observed. This is quite unusual, as normally, tacit knowledge is what the researcher is initially faced with in an interview situation and then it has to be decoded.

10.2.2 Structure

The finding that structures impact upon the implementation of policy is in itself not new. The Third Generation Implementation studies which advanced the idea of the Advocacy Coalition Framework have addressed structure, as have Hjern’s work on implementation networks. We know from Hjern and Porter (1981) and Rainey’s work (1990) that implementation structures can be a subset of more formal organisational structures and Rainey goes on to suggest with his ‘FISU’ (Functionally Integrated Small Unit) structure, that reduced formality may facilitate implementation.

My findings in relation to project teams as structures accord with this and also suggest a further, more processural dimension, based upon group processes. The temporary nature of the project teams and their non-representative structure allowed team-members to ‘absent’ themselves from the dominant rules, regulations and structures of the main organisation (Schofield and Wilson, 1996). In so-doing status incongruity (Homans, 1961) within the group was reduced especially between the clinical members and the general managers. No doubt the contingent factors of the need for a greater commercial awareness in the public sector was also an influence in the subtle change in the relationship between clinicians and managers. However, the dominant need for the project group was to understand how to implement the new system. It was, therefore, in their interest to co-operate, be supportive and share their
understanding rather than adopt the territorial professional boundaries of the main organisation. Consequently, there were fewer behavioural barriers to learning.

In short, the teams were able to cut across the structural and functional needs and roles of the main organisation and develop a more interpretative approach to implementing policy. As such, they had to develop their own technical rationality, as for instance in the case of the new capital accounting mechanisms, whilst at the same time reflecting on their practice in the wider organisation in the light of the need to implement the policy. Thus, their learning was always attached to their practice (Brown and Duguid, 1991). It was then brought about into the organisation allowing the organisation to 'enact' the policy (Daft and Weick, 1984).

In this respect it is helpful to consider the project team as a parallel organisation to the main organisation. When considering how organisations learn, Hedberg (1981) cites Wildavsky's (1973) proposal that self-evaluating organisations might employ dual-management groups to develop alternatives and 'competing world views'. In one way, this was the role played by the project teams. The project team became a temporary organisation which facilitated individual learning. They transferred and linked their own system of knowledge representation - in this case new behaviour repertoires and interactive spreadsheets into the organisation as a whole.

This concept of 'communities of practice' acting as a facilitator of learning is not new within the organisational learning literature, but its application to Implement Theory is new. Its use raises the questions of whether there could be 'communities of policy
learning'. There is a hint in the policy learning literature that some form of collective knowledge would be helpful in steering a policy through to implementation. For instance, we saw in Chapter Five that Etheridge and Shorts' (1983) work on the Three Mile Island incident and the Bay of Pigs exercise suffered from a lack of collectively received knowledge: there were no communities of practice as such in these examples.

Conversely, Weick and Roberts' (1993) work on competency on aircraft carriers demonstrates how a community of practice can contribute to more effective learning because of 'heedful interrelating and collective minds' (Ch. 5). Again, paraphrasing Brown and Duguid (1991) communities of practice encourage not only work collaboration, but knowledge because of the need for the group to 'learn the language'. This is what happened within the project teams in the case studies; not only did they learn the language, but they invented their own vocabulary to deal with the requirements of capital investment appraisal.

Apart from the micro level structures of the project teams, there is also the overarching structure of bureaucracy which has dominated this research. Section 10.2.3 below deals with bureaucracy in more detail, but in terms of structure it had an influence in terms of the accountability of actors and to a degree their motivation. The analysis of the interviews demonstrated how conscious the actors were of their superiors and the need for their decisions and work to be auditable and agreeable to the NHS Executive and HM Treasury. Hence, in this way the bureaucratic structures served to add boundaries to not only learning, but the very direction of implementation itself. These boundaries were made up of the accountability routes;
the predominately top down nature of instructions, the generally vertical networks of actor contacts and associations and the overarching hierarchical command and control system of supervision.

Such an interpretation may appear surprising given the New Public Management and the much promulgated flatter hierarchies and network structures within the public sector. Nonetheless, the vast majority of evidence from this research would imply that bureaucracy is still strong. Furthermore, in a strange way, the very ambiguity of the policy is tying bureaucrats in more, not less, tightly with their superiors. Such a persistence in hierarchical control appears in part to be due to the fact that the NHS is still funded on a national basis and hence financial approval for any capital investment must still be approved by Central Government. Thus, economic criteria influenced the structural contingencies within which implementation takes place.

10.2.3 Bureaucracy

One of the most striking aspects of the findings from this research was the general obedience of the actors in respect of the rules and regulations which were laid down in the guidance on Capital Investment Appraisal, albeit that this was rather vague. Such behaviour is of course vital if a government wishes to see any form of policy-outcome congruence and as we saw in Chapter Three is the basis of rational choice assumptions about purposive action within administrative behaviour (Simon, 1997). Some scholars have commented that such obedience is not at all surprising because this is what public servants are trained to do. (APSA, 1997).
Again, in some respects this finding is different to some of the explanations of bureaucratic behaviour presented in the literature. For instance, there was little support in this research for Down's (1967) view that the bureaucrats were trying to undermine hierarchical controls. Similarly, there is little confirming evidence of Down's bureaux expansion model. What in fact the results could be said to support is Dunleavy's bureau-shaping model, particularly when we compare his five steps which are needed for bureau re-shaping with the type of group intervention which occurred within the project teams. The one caveat one can make to this is that maybe there was confirming evidence for bureau shaping behaviour because the actors were studied within project teams.

Nonetheless, it is maintained that this rule adherence and general lack of radical deviance in the face of policy which was very poorly understood was a key element in achieving the implementation of the new investment appraisal initiatives in the NHS.

The policy initiatives were made into action by managers or bureaucrats. One of the most interesting findings of the research has been to identify at what level in the hierarchy the actors were. These actors were not the policy elites. They were very much the lower level 'operators' or an action sub-cadre. Even more interesting, was these people's own stated perception of themselves. They described themselves in very self-effacing, even uncomplimentary language such as 'I was just the oily rag'; 'I'm the gopher'; 'I just fix things'. We are reminded of 'Roy's' comments from Case Three and his own comments that these people were his 'brat pack'.

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Such a finding is related to Heclo's policy middlemen in the sense that he focused below the policy elites. Strictly speaking, Heclo was really focusing upon actors external to the system, whereas my actors are part of the system, but the issue regarding the level of focus remains. Heclo further supported the idea that policy change (action) occurs at the operant level.

If these findings are to make a contribution to our knowledge about implementation, then one of the processes by which the 'operators' operationalise the policy is by the use of their discretion. We already know from Lipsky that he believes that 'public policy is made in the crowded offices and daily encounters of street-level workers' and the arguments from the top down Implementation theorists is that this is a form of policy deviance. On the other hand discretion is an essential pre-requisite of policy interpretation if one is a Bottom Upper.

However, Lipsky maintained that the exercise of discretion was a coping mechanism, as indeed the findings in this research would support. There is another suggestion for the role of discretion, namely that the exercise of discretion is part of the learning
process; this is because it forms part of the myriad stages and processes which occur when actors discriminate between options and solutions to problems. Added to which, the exercise of discretion formed part of the implementation process in that it was the bureaucrat’s discretion which added the operational detail to the ambiguous policy. Therefore, the exercise of discretion helps to unite learning with action and hence implementation.

Overall, bureaucracy has played two roles in this research. Firstly, it actually facilitates actor’s learning. It does this because it allows the exercise of discretion and at the same time provides a structure for learning and a direction for behaviour focused towards achieving action. Secondly, and paradoxically, both being a bureaucrat and the bureaucratic structure provides a boundary to behaviour, particularly in respect of ensuring obedience, accountability and responsibility.

In terms therefore of the models of bureaucracy discussed in Chapter Three, Dunlevey’s bureau shaping model has considerable relevance to this research, as does Weber’s Rational Legal model. Rules, expertise, the development of competence, hierarchy are all important in Weber’s model, as they are within this research. One is tempted therefore to conclude that far from being dead, ‘King Bureaucracy’ is actually alive and well in the NHS; and above all absolutely necessary if policy is to be implemented on a national basis.

The research has also produced unsuspected findings about bureaucratic motivation which are addressed in the following section.
10.2.4 Motivation

++ Text units 316-328:

A: Yes it was my whole reason for being. Yes I was fairly motivated. Fear was a strong motivator if I am honest. I mean the thought, I remember the night of that meeting and I was due to fly out to Germany literally that night, and had to sort of go off at 4 o'clock on the dot, and really wanted to stay there and work all weekend until I had sorted it, but just had to be somewhere else, and the fear that there was anything that I could have done, that I had done or not done, that could possibly have got in the way of this big deal with Sainsburys was a very strong motivator. I mean fear is the first thing I suppose, but apart from that it was my job, and was what I was there for and I was damn well going to do it.

++ Text units 855-867:

BE: I think things are quite exciting actually, you get a buzz out of being involved in the biggest project in the Health Service, those things are quite exciting, but I think its fraught with a lot of frustrations as well. If you bear in mind, you were talking about going back to the outset of the business case, work started on that in '93, and here we are four years on, so that brings frustrations as well, because I don't think I can still see the light at the end of the tunnel, and yet I desperately believe that East London needs a new hospital and deserves a new hospital, and I desperately believe that its the only way forward. So that keeps me going, that's what galvanises me.

++ Text units 594-600:

GS: Yes, very motivating, very motivated indeed. The bits of the OBC that I produced were some of the best bits of work I've ever done, I've never worked so hard on anything, and you sit back and think, why, because it wasn't the finished product, all the focus was on getting the wretched thing approved.

Text units 713-726:

· Yes, Its, I'm trying to think of the right word, its I do think its very important, and I take it
extremely seriously that I am a public servant, and that I have responsibility for enormous amounts of money, and important decisions which influence a lot of people's lives. Particularly where we are at the moment. And the nice thing is that along the corridor here there are other people that feel exactly the same way. There are two of us anguishing over whether what we were about to approve for a mental health business case was actually the right thing to do. Right back to absolute basics of was it the right thing, and was it good use of public money, and is there a better way to do it.

One of the most unexpected findings from this research has been the degree to which the actors were motivated to learn how to implement policy, despite the enormous problems of time pressure, lack of data and general difficulties with interpreting policy. However, the issue of motivation did not become apparent until the in depth interview stage when the actors began to speak about how they felt about their involvement in the project teams. In hindsight, during the observation stage the fact that the actors were so diligent is obvious proof of motivation, but I missed this in my analysis of the observation.

The literature on bureaucracy is the most helpful in trying to understand this motivation. It must be emphasised that this finding needs more work to be completed on it. It would be a fine future research agenda to look into the nature of motivation within the 'reformed' bureaucracies of the New Public Management services.

We know from the literature that concepts such as vocation and loyalty are accepted as motivators for bureaucrats. The same literature would tell us that bureaucrats are self-seeking and expansionist (Tullock, 1976), seeking agenda control from the
legislature (Eavey and Miller, 1983). Certainly, in this research the agenda control was passed legitimately to the bureaucrats in respect of adding the detail to the policy. Clegg (1990) has suggested that there is a 'moral context of values' for bureaucrats, similar to Van Gusteran's (1991) description of a bureaucrat's ethical base. I would suggest that in this research, such values are even more exaggerated because the actors are within the NHS and have been socialised into a 'caring' environment.

10.2.5 Time

The total elapsed time for this research has been six years; with field work running between 1991 and 1994 and then interviews carried out in 1995-1997 to give some element of a longitudinal study. However, this does recognise that this is less than ideal when compared to Sabatier's suggestion that implementation studies should cover a period of at least a decade. Sabatier is one of the few authors who has taken account of time in any way at all. Although Ripley and Franklin (1980) did analyse the stages of implementation and in this sense considered temporal elements as a variable during the staged nature of implementation.

It is surprising that time has been considered so little, especially given the fact that most implementation scholars have been keen to emphasise the direction of policy, i.e. Barrett and Fudge's conceptualisation of policy making into action conjures up the idea of a dynamism but with very little sense of pace because time has been ignored.

The findings here demonstrate that time has a very important role to play in the implementation of policy, particularly when linked with the idea of learning. In
Chapter Eight, the logic diagram for the category 'Timing' explained the various ways in which temporal issues worked within the research. Broadly, three distinct temporal phases were identified in the cases: the initiation of implementation (reactions to statute or policy guidance); the transitional stage (wherein action has occurred and is being maintained; and finally, the continuation stage, wherein action has been routinised and new learning has ceased.

However, it is possible to explore the idea of time in a broader perspective beyond the remit of the case studies. Chapter Two explains at least a decade of contemporary policy within both the public sector and specifically the National Health Service. Now we have a perspective of at least fifteen years and can actually see that the NHS has definitely learnt how to do capital investment appraisal. It is suggested that this is because competence develops over time; this occurs through repetition and the use of tried and tested solutions which solve one type of problem and are then used again - sometimes regardless of the specifics of that particular problem. Hence we have further evidence for the 'different problem: same solution' issues explored in the context of Weick's research (1991) explained in Chapter Five.

Time is also important in that it provides a perspective from which to examine the diffusion of knowledge. Much of my evidence regarding diffusion is anecdotal, in the sense that neither during the observational phase, nor the interview phase of the research, was knowledge diffusion specifically addressed. Nonetheless, informal commentary and an ongoing research position within the NHS has shown that knowledge, in the sense of solutions to problems, is shared amongst peers and even
broadcast at conferences and seminars. However, such activity *takes time*. There appears to be a delay of at least 12 - 18 months before specific solutions are generalised into national solutions. This in itself raises the question of when are such experiences, competencies and solutions fed into the policy process?

It is not surprising that time as a variable and an important aspect of implementation studies is not as well documented in the research papers as it might be. Modern research grants and hence research design in policy studies do not really allow for longitudinal studies. However, some form of punctuated study might be possible as would retrospective studies which looked at the collective memories of actors involved in implementation.

10.2.6 Detail

One of the key findings from this research is that policy is implemented by the translation of strategic policy into operational activity. In order for this to happen, actors need to learn how to solve a whole series of technical problems which add *detail* to what are often very ambiguous policy instructions.

The logic diagram in Chapter Eight which relates to 'detail' explains something of this relationship between strategy and operational activity. However, once again the literature both on implementation theory and policy analysis pays very little attention to detail as an issue. We already know that Scheirer and Griffiths' (1990) study did pay attention to micro level detail in respect of the school dental fluoridation programme. Similarly, within the studies of the new policy environment of the NHS,
Strong and Robinson (1990) provide an example of an ethnographic approach. Overall though, most of the implementation studies have a tendency to adopt either a meta analysis or a macro policy-action congruence approach, paying less attention to the action end of the spectrum than to the policy design end.

The beginning of Chapter Six suggests that in part, the reason for the lack of attention to operational detail is because of the dominant positivist approach to studying policy. If we are to discover about how detail is added to policy, then implementation research design needs to be long term, ethnographic and fairly painstaking.

Furthermore, there will always be the methodological problem of linking such micro research with the macro policy context and providing sufficient generalisable findings as to be of some help to policy analysts. It is the organisational learning literature which considers detail, particularly in respect of developing competencies and skills. We know, particularly from the work of Cohen and Bacdayan (1994), that procedural learning is more tacit but that it is procedural learning which encompasses skill and competence development. It is precisely this sort of learning which I observed; actors learning how to achieve the technical skills necessary to fulfil the needs of a business case. Such development of technical competence is, I would argue, all about detail. Cook and Yanow's (1993) research about learning how to make a flute is the nearest piece of literature to my own findings.

Just as flute making is a craft, so too is the way in which layers of technical detail are gradually added to a broad framework of ambiguous policy design in order to bring
about operational action. In this way, we can argue that policy implementation is
crafted and the crafts people are the bureaucrats.

So important is this process of the accretion of detail, that it actually throws into
question the relevance of the emphasis placed upon cultural learning which is so
strong in the organisational learning literature. It is actually the change in job routines
and task configurations which impact upon workers' daily lives. It is through their
daily lives that they experience any new cultural milieu, so therefore, technical
learning needs to come first, certainly before workers really experience generative
learning.

Having considered the six novel findings in relation to the established literature, the
following section will now discuss how the findings can be interrelated to support a
proposed theory of 'Learned Implementation'.

10.3 Operationalising Policy

If we return to the starting premise for this research, which was to discover the
processes by which policy is implemented, and also to Barrett and Fudge's assertions
that 'policy does not implement itself' (1981, p.9), implementation is about policy
becoming action, then the findings from this research have suggested that policy has
to be operationalised into action. This is done via inventing solutions to the problems
presented by the policy.
These solutions were then routinised either by repetition or by developing them into job tasks and procedures. I have suggested that it is at this point of task design and retention of a particular solution, that the point of operationalisation comes about. However, as we have seen from the case studies, there are many, many tasks all of which need to be integrated together before the overall policy is operationalised. Moreover, this is just one phase of implementation as the task solutions need to be refined, amended and then linked into the pre-existing operational structure of the organisation before such novelty does in fact become commonplace.

As part of another piece of research, I have in the past three months surveyed twenty NHS Trusts via a short questionnaire, face to face and telephone interviews. One of the survey questions related to how the Trusts would cope with a complicated contracting exercise and costing (in fact for Her Majesty's Prison Service). Every one of the Trusts replied that they had absolutely no problem in costing any activity in a contract and that they 'were very sophisticated at costing now'.

In actuality, the NHS is able to cost more accurately than the Prison Service. Similarly, in respect of the new Private Finance Initiative, which requires a publicly funded business case to be used in comparison to a privately funded case; the NHS has gained sufficient knowledge and technical confidence to enter into negotiations with very advanced business consortia, involving multi-national construction companies, venture capitalists and merchant banks. The NHS has learnt how to complete successful business cases as part of a quasi market economy. Furthermore, I would suggest that it has taken them 5 - 7 years to achieve this competence, and this
research has, I hope, demonstrated some of the stages and processes by which this competence has grown.

10.3.1 A Processual Model of 'Learned Implementation'

In Chapter Eight the final and third stages of a Grounded Theory approach were described. The core category which is necessary for a grounded theory is, in this research, that of learning and it is the category around which the five remaining novel findings or categories are conditionally related.

Glaser and Strauss emphasise the need for a constant comparison of the conditionally related categories to the core categories and to explore how these categories vary to each other under different contexts. The model of 'Learned Implementation' is presented here as an initial theory which needs to be tested and amplified with further research. In this sense it is limited in respect of the constant comparative approach, but it does bring together the key findings of this research in a processurally linked manner.

Glaser and Strauss encourage the reader to 'explicate the story line' of very detailed qualitative research. This has been a helpful exercise, as it has allowed a focus down to a theoretical statement, as follows:

Public policy is implemented because bureaucrats are motivated to operationalise strategic instructions into operational action.

The translation of strategy into action occurs because the bureaucrats acquire technical and procedural knowledge. This knowledge is routinised and recorded into job tasks and procedural memory.
The implementation of policy will vary according to the number and type of facilitators and constraints to learning.

The valancy of the bureaucrats' motivation is a function of their sense of professional responsibility and organisational accountability.

The opportunity for the bureaucrats to interpret new policy, design the operational detail and use their discretion is also a positive motivator.

Learning increases over time and with it overall competence at implementing the policy to the extent that the policy is no longer seen as new and the implementation solutions have themselves become routinised.

Figures 10.1 and 10.2 provide a graphic explanation of the model. Figure 10.1 is constructed as a force field analysis emphasising the facilitators and constraints to learning how to implement. Figure 10.2 shows the model as an implementation loop feeding into a pattern of ongoing implementation.

The idea of learned implementation has consequences for the Policy Process itself, and these are discussed in the Conclusion; in particular the model is linked with Easton's (1965) classic model of the policy process and developed into an idea of 'adaptive implementation'.

10.4 Contribution of Findings to Overall Knowledge of Implementation Studies

The results of this five year research project have, I believe, contributed to the overall knowledge base about public policy implementation in a number of ways. There is the addition of new knowledge in respect of the roles which learning plays in implementation; the influence of motivation; and the importance of technical and mechanical detail in operationalising policy.
Figure 10.1: Model of learned implementation: Facilitators and constraints to learning

Constraints to learning:
- Problem complexity
- Lack of resources
- Lack of information and data

Facilitators of learning:
- Organisational structures: project teams, responsive hierarchy
- Organisational capacity, spare resources
- Availability and quality of expertise

Consequences:
- Public policy implementation
- Occurs as a result of learning
- Learning is a function of
  - the competence and capabilities of public managers (bureaucrats)
  - knowledge representation
  - latitude of bureaucratic discretion
  - the motivation of bureaucrats
Figure 10.2: Model of learning implementation: Learning and implementation loop
The research has expanded the discussion about the influence of bureaucratic discretion in policy implementation, particularly in respect of how discretion and motivation are linked. The research has also re-focused the attention on lower level implementation actors rather than policy elites. It explains the important role which lower level people play in discovering operational solutions to policy problems.

The research has re- emphasised the importance of time as a variable within implementation. In particular, it has highlighted the role which time plays in allowing cumulative learning and how the passage of time facilitates the development of technological improvements such as improved computerised data handling and forecasting capacities, which in turn facilitates overall learning. Finally, the research has made a methodological contribution to implementation studies, particularly in respect of linking an ethnographic study with linguistic analyses to produce an overall processual study of public policy implementation.

In summary, therefore, this research has contributed to the overall knowledge about public policy implementation in terms of explaining the processes by which public agents learn to turn new policy initiatives into action. Specifically, the processes of how they learn; how they both use and invent detail and why they are motivated to implement governmental instructions. It has also expanded the discussion about some of the existing implementation variables, particularly those of time and bureaucratic discretion. These research findings are culturally bound and because of this have a better fit into the British literature on Implementation Studies.
The North American studies of implementation are heavily influenced by the federal nature of government and hence tend to emphasise the importance of centre-local negotiations and spheres of influence. The Scandinavian literature reflects the socio-economic legacy of network analysis and inter-sectoral communication within implementation. Whereas, this work has reflected the predominant command and control structure of a highly professionalised British bureaucracy who are trained and socialised precisely to respond to government instruction no matter how ambiguous; their raison d'être is to learn.

The obvious riders to these statements have to be that this research was firmly located in a highly specific, one agency organisation. It did not seek to look at inter-sectoral or inter-agency networks, nor did it concern itself with centre-periphery power relationships.

Hopefully, the research could be said to become a member of the third generation models of implementation because of its emphasis on process and the interaction of multiple variables. In terms of where the research fits in respect of Top Down or Bottom Up approaches, the first reaction is to say definitely Bottom Up because of its attention to lower level actors and operational action rather than policy design. However, it helps to recall Berman's (1978) work at this point. If we recall from Chapter Four, Berman argues that implementation occurs when the macro (central policy) interacts with the micro, in this case NHS Trusts and their need for capital investment. Therefore, this research is part of both the Top Down and Bottom Up
traditions, for without the initiation of policy from the top, there would not have been a bottom up response.
CHAPTER ELEVEN

CONCLUSION

11.1 Introduction

The cases used in the research and the data derived from their analysis have contributed to an increased understanding of the role of technical learning in implementing new public policies in the following way:

i they have focused on the problem solving required by bureaucrats to answer the new policy initiatives.

ii the methodology used, allowed data to be gathered about the processes involved in such problem solving, as outlined in Chapter Eight.

iii in turn this showed how important it was for bureaucrats to gain technical (problem solving) competence in order to address policy design.

iv as a result of the longitudinal nature of the cases, it has been possible to show how this technical knowledge and competence grew over time, eventually became routinised and then operationalised as a job task. At this point of becoming a job routine, the thesis has argued that technical competence allowed a policy initiative to be implemented.

One of the benefits of adopting a processual approach towards researching policy implementation is that it helps us to understand why the actions which result from a policy initiative may not be congruent with the original policy intention. The lack of congruence may be for a variety of reasons; in this research it has been suggested that
a lack of technical knowledge has resulted in a number of unintended consequences of policy.

However, another and perhaps more useful result of processural research is the ability to understand that, through the process of learning, actors have actually had to adapt the policy in order to implement it. They may, or may not do this consciously, but the fact remains that the majority of policy initiatives do not deal with detail, and yet it is precisely the detail which is important in turning policy into action.

The research presented here was not intended to explain policy-action incongruity, rather it has been designed as a heuristic study: what is actually done with the new knowledge is a different research question and one more suited to a study of policy evaluation rather than policy implementation. Nonetheless, as was evident from the 1997 American Political Science Association annual conference, explanations and discovery no longer seem sufficient in themselves for policy researchers. It became standard practice after research findings had been presented at this conference for audiences to ask 'so what'? There appears to be, if not quite an instrumentalist approach towards research, then at least a utilitarian desire for relevance amongst the policy analyst community, albeit even if that relevance was not clearly defined.

The final chapter will discuss three areas in an attempt to answer the 'so what' question. Firstly, the possible implications of the research findings are explored; secondly, there is a discussion about the place which the findings have within the overall public policy process; finally, possibilities for further research and a future
research agenda for policy implementation are outlined. However, these discussions take place with the caveat that a truly comprehensive discussion of the implications of this research and particularly the relevance of the 'Theory of Learned Implementation' can only occur after additional research has been designed and possible disconfirming evidence discovered. Furthermore, such new research would need to be designed to give access to the policy design and initiation stages of the policy process which has not been possible in this research.

11.2. Summary of the Research
Prior to entering into the discussion of relevance, it is helpful to briefly summarise the basis of the research, its field work, relevant literature and findings. The aim of the research was to explain how public sector managers implement new public policy initiatives. As such the study was designed to address process; in so doing it also had to address the substantive issues of the policy which was to be implemented.

The policy area which was chosen was the implementation of a new piece of legislation in the British National Health Service, specifically the 1990 NHS and Community Care Act, and in particular the introduction of a new Capital Investment Appraisal mechanism. This required a change from a traditional public sector approach to capital investment, to a more commercial and market based approach and as such mirrored the contextual changes which had occurred in the public sector from a command economy to one of a quasi market.
The research design and additional research questions were informed by a review of four areas of literature. The review included literature about the public policy process and the role of the bureaucrat; the literature about contemporary British public policy and its impact on the NHS; the literature on public policy implementation and the literature on organisational learning. Emphasis was placed on the fact that the general public policy literature made very few connections with the organisational learning literature and vice versa.

The empirical research was focused on four case studies of Capital Investment Appraisal in the NHS, using an interpretive ethnographic approach. The data gathering techniques which were used involved documentary analysis, non participant observation and unstructured interviews with actors which were later analysed using QSR.NU.DIST for linguistic inference. The case studies were presented in such a way as to indicate implementation processes and the role of substantive issues within the new Capital Investment Appraisal directives.

The analysis of the field data was constructed around a Grounded Theory approach which analysed the non participant observations first, then the linguistic analysis and then linked the two sets of analytical categories which had been developed. Using Grounded Theory techniques, the analytical categories were then subject to axial coding and eventually the development of a conditional matrix around the six novel findings.
The six novel findings are: the importance of operational detail in policy implementation; the necessity to have a motivated bureaucracy to drive the policy towards action; the benefit of a project management structure for large scale implementation to facilitate learning; and the importance of the passage of time in building up technical competence through practice. All of these factors can be linked into an overall concept of the need to learn in order to implement policy and move it from an idea towards operational reality.

The research concluded with a statement of a 'Theory of Learned Implementation'. The research’s contribution to the knowledge about policy implementation is that public managers do not necessarily know how to technically translate policy into operational action. For this to happen they have to go through a process of learning. Many of the learning processes are similar to those explained in the organisational learning literature, but, the research would suggest that this literature over-emphasises the importance of cultural learning (know why) at the expense of technical and mechanical learning (know how).

I would suggest that this is an unfashionable finding within the organisational learning literature, but one which has more credibility within the policy analysis community precisely because the cultural learning milieu is a given: the culture is defined from central government directives. The overall organisational context of governmental directives is a bureaucracy, and the research suggests that one of the reasons policy implementation occurs is because of bureaucratic obedience.
The context of learning within these case studies was one of extreme complexity and pressure. The pressure can be defined in terms of the speed with which the project groups had to complete their appraisals, the reduction in the number of people to assist in doing this, the very high level of uncertainty about the working of the quasi-market in health care and finally the degree of risk involved, especially in terms of the potential failure to obtain approval for the investment. As such the groups had very little alternative but to learn how to submit new business cases for capital investment.

It is this element of learning as a result of extreme adversity that gives a rather different perspective to that of some of the writers on organisational learning. Argyris and Schon (1978) define organisational learning as requiring new theories of action to be introduced to restructure organisations. However, in these case studies massive organisational restructuring had already occurred and managers had to learn to make sense of their new world, whilst at the same time surviving and being successful in it. Perhaps this is a feature of the public sector in that managerial action comes after policy changes rather than being the cause of them.

11.3 The Implications of the Research

In his 1990 discussion about Public Administration being a discipline in crisis, John Kingdom highlights the 'Can Do Minister' ethos of Thatcherism:

"the renowned preference for 'doers' promises a constitutional sea-change with a redefinition of the activity of public administration in terms of the old mythical politics - administrators dichotomy: Implementation becomes mute obedience to central authority".

(Kingdom, 1990 pp.20)
Certainly, this research has explained some of the ways in which this 'doing' occurs and also provides empirical evidence for bureaucratic obedience. Kingdom's polemic goes on to criticise the 'can do' style of implementation because he claims that it reduces the democratic opportunity to fully consider the implications of policy.

I would however raise a point of disagreement with Kingdom's stance as a result of this research. Firstly, his argument relies on 'mute obedience' of the bureaucrats for implementation; we have seen that there is obedience to the intent of the policy, but it is hardly mute because of the huge amount of discretion needed to interpret the policy. The bureaucracy has wide ranging decision making and innovative latitudes. Their motivation is to do their jobs to the best of their ability in respect of both policy intent and for their clients. Kingdom fails to equate loyalty and accountability to clients as an alternative expression of democracy, presumably because only the electorate can be classified as the demos. This does though raise the difficult question within the British National Health Service of a lack of elected representatives for NHS Trusts and Health Authorities, but this I believe to be a separate argument.

The second argument against Kingdom's stance is in terms of his assumption that both the politicians and the electorate know what the outcome of the policy will be. Both the established literature on Implementation Theory and the results presented here, demonstrate that much of the policy is emergent and consequent upon the action as it is experienced on the ground. Therefore, at the policy design stage, it would be very difficult indeed to predict the operational consequences of policy.
So, we are left with the question of who knows best 'how to do': the electorate *ignotum per ignotius*; the politicians with their ideology, or the bureaucrats? This question cannot be answered here. However, when juxtaposed with Kingdom's thesis, I would suggest that given what we do know about 'can do' implementation, then the real question and argument becomes 'what is the degree of allowable risk' which the public themselves and those in the public sector are happy to tolerate in terms of not knowing the consequences of policy until it is actioned?

Some suggestions can be made towards answering this question and they are influenced by what has been discovered in this research; they could also form the basis for further research. In their study of public policy implementation during the Thatcher years in Britain, Marsh and Rhodes (1992) discuss the 'unintended effects of policy' hypotheses. We have already briefly visited this idea via Hoods work in Chapter Three and it bears some similarity to my suggestions about 'the degrees of allowable risk'. Marsh and Rhodes provide specific examples of how some policies had unintended consequences and so ended up undermining the effect of the policy, or even the achievement of another policy objective (pg. 174). The examples refer to housing policy; employment policies and Britain's attitude towards Europe.

The reason that Marsh and Rhodes give for these unintended effects, is what they call an 'implementation gap'. Interestingly, the template against which they measure 'full' implementation is Sabatier's (1986) conditions for perfect implementation. They explain why, in their opinion, implementation failed because the government was
operating with inappropriate theory; the wrong tools; failure to control all the necessary resources; street level bureaucrats and interest groups.

These are all plausible and important arguments, but they are arguments which are still predicated upon the policy-action congruence assumption. Such an assumption assumes that a lack of congruence is a failure. I would like to reframe the argument: a lack of policy-action congruence is neither good, nor bad, but something which carries a high degree of risk.

Sabatiers conditions for implementation are accepted and endorsed by scholars but I should also like to add a further condition - that of the competence of the policy actors. There is no suggestion from either Marsh and Rhodes, or Sabatier, that failure to know what to do results in an implementation gap. I am suggesting that lack of competence also causes this gap. The word competence is used in its full sense to convey a meaning of ability and capability. This research has demonstrated the ways in which competence can and does grow through learning. Therefore, in order to minimise risk, there has to be an increase in the competence of the implementing agents.

The following points are suggested as ways to minimise risk through lack of competence:

(i) Construct pilot sites and experimental situations to trial policy in its initial stages in order to study the action consequences of implementation.
(ii) Develop a policy learning feedback system from the public to the bureaucrat to the Minister.

(iii) Record experiential learning into an implementation archive.

(iv) Encourage systematic knowledge diffusion about implementation processes.

(v) Encourage systematic education and training for implementation actors to develop policy competence.

This research has shown how the actors within the case studies 'borrowed' solutions from the private sector and utilised private sector capital investment experts. This approach is similar to Rose's (1991) 'lesson drawing' and shows how commercial models can be of help in the public sector. However, a note of caution is needed because an over dependence upon outside experts may lead to a skill loss within the NHS and in the long term the loss of the ability to learn.

There is also another important implication for policy analysts themselves from this research. This is that there is a vital need for analysts to be able to straddle the theory-practice divide, in terms of their comprehension and their research design. In an indirect way, this is what Yanow (1993) is suggesting in her paper on symbolic implementation. Yanow stresses the need for an interpretative approach to implementation research. It is suggested that interpretation will allow research to get away from the 'univocal' policy language, of unambiguous policy implementation, towards a more 'multivocal' language which discovers multiple meanings and aberrations. Thus, if analysts only ever look at the policy design stage, and not at the policy outcome effects, then the full picture will never be discovered. There are,
though huge practical and resource implications of such an approach which go beyond the possibilities of single handed researchers.

A start towards a unified policy/practice approach could come about by researchers developing a high level of knowledge about both political theory and organisational behaviour. In this way at least some of the lessons of the past can be learnt for future research design.

To conclude this section on the implications of the research, we can once more go back to Kingdom's criticism of 'can do' implementation. The root of his criticism is that the 'mutely obedient' bureaucrat is yet another example of the British scepticism towards social democracy. He believes that 'can do' implementation protects policy formulaters and policy actors from 'the pressure of democracy' (Kingdom, 1990, p. 5).

Whilst one can sympathise with Kingdom's ideology, I believe that his causal reasoning is misplaced; it is not so much that bureaucrats have become more obedient than previously, it is more that they have been involved in implementing a political ideology with which he (Kingdom) does not agree. It could well be argued that the system of democratic checks and balances has altered within Britain over the past two decades to produce the so called democratic deficit. However, it could equally be argued that the very ambiguity of policy is in effect a very democratic thing. The preservation of democracy in terms of egalitarian representation, participation honesty and justice depends upon (i) the competence of the public managers and (ii) their motivation. The former which has been addressed in this research, the latter has been
partially addressed and needs more and possibly urgent research to discover how far we have drifted from a Weberian ideal type bureaucracy in the era of the new Public Management.

Another strand to this preservation of democracy argument, which can also incorporate a 'can do' implementation philosophy, is how the experience of policy 'in' action can be fed back to politicians and policy designers. The following section will address this point in respect of the policy process.

11.4 'Learned Implementation' and its role within the policy process
The idea that there is such a concept as 'the policy process' was introduced in Chapter Three and implementation forms an important link in the chain from policy initiation to action. Figures 11.1 and 11.2 represent two schema of the policy process. Whilst both schema are useful in helping to conceptualise the policy process, they give no indication that there is any difficulty in achieving the conversion of policy into action: thus they subscribe to the implementation is 'doable' argument.
Figure 11.1: Linear view of implementation in the policy process

Figure 11.3: Adaptive implementation in the policy process
One of the difficulties of this research has been in terms of researching the earlier stages of policy design and initiation. We know from Chapter Four that these stages have an important impact upon policy implementation. The difficulties arose because of access to senior mandarins and minister and because of the scale of the research: the addition of another stage would have made it unmanageable.

However, in order to obtain a small indicator of something of the issues surrounding the policy design stage, one of the interviewees was a Whitehall civil servant on secondment to the Department of Health and the NHS Trust described in Case Four. It was also possible to interview a very senior ex Principal Private Secretary to three former British Prime Ministers who was also the Permanent Secretary to the Secretary of State for Health at the beginning of the NHS reforms in the early 1990s.

The following extracts are from the verbatim drafts, via NU.DIST of the first actor who agree to be taped. They are presented to demonstrate the following points:-

(i) that policy ideas can originate without regard for how they may be finally experienced by both bureaucrats and the public.

(ii) That technical and operational knowledge is absent at the policy initiation stage.

(iii) There was an assumption that detail would be added at a later date, but there is no way of ensuring this.

I knew quite a lot about the theory of what was trying to be done at the time.

- I suppose the knowledge was diffused in two or three main ways. The production of the White Paper was done on a very enclosed circle with ourselves, No. 10, and the Treasury being the main players in
this. There were probably only about a dozen people in the department, if that, who actually saw all the strands together, and put together the White Paper to basic policy and we were doing that, and that was done largely I think with only limited reference to people in the NHS, although it does seem like that from my particular vantage point.

- You actually had to do a White Paper in order to get people's attention and begin to explain what was going to happen. That continued for the next couple of years between the time of the production of the White Paper and April 1991, the White Paper was produced in January '89 and the changes in the NHS the Reforms actually occurred on 1st April 1991, during which time there had been the passage of legislation and so on. So first of all there was a great communications effort. People have to judge themselves how successful that was.

- Secondly, the White Paper sketched out the broad headings and the broad ideas, as well as some of the mechanisms which needed then to be underpinned. There were two things which needed to be done with that. First of all a great deal more of the detail of what exactly a Trust would be, had to be sketched out, of how exactly would the financial flows work, how exactly would GP fundholding operate, and that was done through a series of what were then known as Working Papers, which by and large spread things both in the department but also in the Service in gathering people together. So that was one thing.

- Yes. Secondly there was a great operation to do these things, which meant setting up specific teams within the department to deliver that, and working through the RHAs and their teams and managing this enterprise, gathering enthusiasts who wanted to be, who were taken with the idea of being a Trust, who were taken with the idea of being Fundholders, moving them up and guiding them through the process of becoming those entities.

- I think that my personal view is that we talk too much to Chief Executives who quite often don't know what is really going on in detail. Actually quite a lot of what drives the system is the detail working
out bit, and therefore, because I helped shape the internal market and had views on how the contracting system would work, I was quite interested to find out when I got down there how it really worked, which seemed to me to be best delivered by people who were in some cases the contract managers and getting into discussion with them.

- They were two or three bits below the top of the organisation, third or fourth in line people. What is clear is that the way in which we constructed the various internal markets and appraisals never had a hope of working in certain situations, because we just did not understand the drivers lower down the system.

The italicised quotes above reinforce the findings of this research. Detail matters because it is the nature of the detail which shapes how the policy is experienced in the workplace and by the public. Moreover, and to reinforce the previous discussion about degrees of allowable risk, if the detail is ignored at the policy design stage, then how can its effects be predicted?

It was this last theme which I explored with the retired, senior mandarin. There are no verbatim quotes because the interview was not taped. His view upon the consequences of policy and how it is experienced was that, practically, governments have to wait until the policy is implemented and then there should be a series of national inspectorates to investigate the operational consequences of policy. In this way, Ministers and senior civil servants can be kept informed about what has happened. Part of the problem for government when it comes to understanding implementation, is that they lack data, knowledge and to a certain extent, comprehension. This is because they rely on the operational managers for such
information and there is no clear route for operational information to be fed back to Ministers.

Britain does have a varied and disparate system of inspectorates; some are called inspectorates like the Social Services Inspectorate, other bodies have an investigative function such as the National Audit Office and the Audit Commission. Similarly, there are Parliamentary bodies with very powerful investigative powers and the ability to call for detailed evidence such as the Public Accounts Committee and the Select Committee system.

The interviewee also felt that the moves towards open government helps two way communication between politicians and managers. He also believed that there is now a far greater willingness on behalf of Whitehall to take notice of research findings. One very important point which he did make was that Whitehall Departments differ greatly in their managerial culture and hence in the way that they experience implementation. He developed two extremes of a scale: on the one hand there are the 'command and control' Departments and on the other, the more laissez-faire Departments. It has not been possible to explore such an idea in this research because it has concentrated upon a very specific Department - and probably one of the most managerially oriented.

In terms of the issue about policy-action congruence, or the lack of it, both interviewees posed the same questions: should there be more control, more guidelines and tighter legislation? Neither had an answer. Interestingly, one of the interviewees
questioned why policy analysts assumed that Governments actually cared what the consequences of policy were, so long as political will and ideology were seen to be executed? This is perhaps too cynical a view, but the question still remains of whether to have more or less guidelines and instruction. This research indicates that more guidelines could reduce bureaucratic discretion, in turn this could reduce bureaucratic motivation.

Perhaps far more telling, are the following quotes; some authors have suggested that Thatcherism was about 'radical shock', i.e. it wasn't so much the policy outcome which mattered, more the upheaval of policy change, as echoed by the following comment from one of the civil servants:-

- Take the poll tax. The thing about the CSA (Child Support Agency) and the poll tax is that they were lovingly crafted over a period of time to produce exactly the results that they had. To produce the economic effects, the sort of gains and losses and so on that they had. The CSA was geared up. It didn't really matter what the results would be, it was the radicalness of it that counted. And I think they are a bit more cautious than you give them credit for. The simple point of the poll tax was that the bills came out too high. That was the issue. Simple as that. Bills were too high. That was the basic problem.

What then could a 'Theory of Learned Implementation' offer to some of the aforementioned question? As explored earlier, there are opportunities for developing bureaucratic learning ability. However, in terms of the macro policy process, Figure 11.3 suggests that a type of policy experimentation (pilot sites; experimental models)
could be linked into a form of *adaptive implementation* as long as communication between operational managers and policy designers was possible.

### 11.5 A Future Research Agenda

There are a number of opportunities for future research following on from the findings presented here. At a descriptive level, it would be helpful to link some of the learning processes which have been identified, with the well established implementation variables, and to investigate their interaction. More empirical work needs to be conducted around 'The Theory of Learned Implementation' to find either confirming or disconfirming evidence of its helpfulness. Ideally, such work would be carried out in one of the more 'command and control' government departments.

It would also be very interesting to investigate the earlier stages of the policy process, particularly in terms of the ideas of adaptive policy design being informed by adaptive *implementation*. Such an approach, would of course, require the researcher to get right inside the policy loop and preferably into the pre-legislative phase of policy design. The practical difficulties of this are immense, especially if ethnographic methods were to be used.

There is now, in Britain, the suggestion of 'The New Politics' or the 'Third Way' between a market and state regulation. Indeed, within the NHS the 1998 White Paper, 'The New NHS: Modern Dependable' heralds the 'suspension' of the internal market, but as in 1990 there is very little detail about how this suspension will operate given that the transaction of contracts will remain.
There will, in the future, be a need to understand the implementation of 'The New Politics', particularly in a world where managerialism within public services appears to be a permanent feature. We have now a policy environment which is forever changed. There is now a decoupled public sector and the advent of regionalism raises issues about local learning; furthermore, the mandatory requirement for public agencies to collaborate could indicate a paradigmatic shift for Britain's bureaucrats.

The manner in which these changes come about will need to be learnt in terms of processes and technical detail. The one area where future research does seem feasible and exciting is in terms of what motivates bureaucrats, not just in terms of their apparent obedience, but also in terms of their creativity and, above all, their constructs of responsibility. As such, this would be a fitting acknowledgement of those 'oily rags, gofers and worker bees' who operationalise our public policies.
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