OUTSOURCING IN MALAYSIAN HEALTHCARE SUPPORT SERVICES: A STUDY ON THE CAUSES OF INCREASED OPERATIONAL COSTS

by

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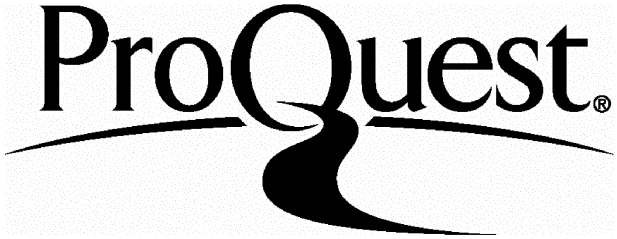

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Abstract

This report explores the causes of the significant increase in the healthcare support services due to outsourcing. It starts by discussing general view on the scope of outsourcing particularly on the reasons, benefits, drawbacks and the management. The issue derived from the drawbacks of outsourcing which surfaces from the transaction costs is then emphasize to generate better understandings on the risks of outsourcing.

Coupled with the benefits to the host organization, drawbacks like the search and information costs, negotiating and bargaining, and the costs of policing and enforcement could affect the outsourcing process and later creates additional spending by the client. The bounded rationality, opportunism and the asset specificity are the main reasons for the existence of the three.

The broad scope of the outsourcing project implemented by the Malaysian Ministry of Health to its support services for the period of 15 years resulted is another contributing factor that exposed the private service provider to uncertainty which later created a risk averse behavior from them particularly on their pricing. Hence, a details measurement needs to be done to safeguards the interests and security of both parties. All of the above are the factors that lead to the increased spending on the support service.

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Chapter 1

1.0 Introduction

This chapter provides the background of the report by explaining the problem and the issues that arise to the problem owner and the needs to investigate it. The issue created some basis for the objective and scopes of study of the report before explaining on the methodology used to explore and conclude the findings. Finally, it gives an overall view on the report outline.

1.1 Background to the study

Privatisation of public services in Malaysian Government has started back in 1983 under the ruling of former Prime Minister Tun Dr. Mahathir Mohammad. "The aims of privatisation are to represent a new approach to national development, complementing other policies such as Malaysia Incorporated, which was designed to increase the role of the private sector in economic development. Among the objectives were to reduce the financial and administrative burden on the government, to improve efficiency and productivity, and to facilitate economic growth " (Sangaralingam and Raman, 2003).

The privatisation mechanisms implemented in Malaysia are very diverse. It includes sale of equity or assets, lease of assets, management contracts, build-operate-transfer or build-own-operate, and management-buy-out. In the agricultural, manufacturing, financing, and the real estate business shows the domination of the sale of equity whilst in the infrastructure works mainly the electricity, gas, water and telecommunications are more towards to the build-own-operate (Chan, 2002).

The method of privatizing support service or other peripherals services is known as outsourcing in the UK and it carries narrower scope from privatisation. Hence, to avoid misunderstanding of concept, the term outsourcing will be used throughout this report.

The idea of outsourcing the public healthcare of Malaysian Ministry of Health (MoH) was raised in 1996 by the government while announcing the Seventh Malaysia Plan. "...to increase the efficiency of services and to retain qualified and experienced manpower [in the public sector], the corporatization and privatization of hospitals as well

as medical services will be undertaken during the Plan period. The Government will gradually reduce its role in the provision of health services and increase its regulatory and enforcement functions. A health financing scheme to meet health care costs will also be implemented" (Economic Planning Unit, 1996).

The government concerns on the increased operating costs of public hospitals have resulted the move towards outsourcing mainly the pharmaceuticals, medical supply and the support services (Chan, 2000). As the consequences, the medical supply, pharmaceuticals and support services has been outsourced to the private vendor and service provider. Outsourcing of the medical supply was carried out by appointing a private company on managing the drugs supply and distributions whilst support services was done by contracting out the in-house provision to the private service provider (Sangaralingam and Raman, 1999).

The government approaches towards outsourcing its public hospitals are diverse. For instance, the department of cardiothoracic surgery has been fully corporatised in 1994 and carries the name of Institut Jantung Negara (IJN). "It is a company wholly owned by the government (Finance Ministry)" (McCoy, 1998, 1). In contrarily, only the healthcare support services were outsourced in all the public hospitals (McCoy, 1998).

1.2 The issues

The outsourcing project has created a mixture of reactions from the public and other public interest groups concerning the low-income, the elderly, and the disabled (Sangaralingam and Raman, 2003; Chan, 2000). Their concern is based on an increased in the operational costs of support services (Chan, 2000). The same issue was also raised at the 3rd parliamentary meeting of the lower hall (Dewan Rakyat) and was answered by the Parliamentary Secretary of Minister of Health. He claimed that there was an increase from RM470 Million (£67 M) to RM510 M (£7.25 M) in 1999 and then decreases to RM RM505M (£72M) in 2000. [1] The large amount needed for maintenance has been expected to increase yearly due to the high maintenance cost of hospitals (Ministry of Health, 2003).

[1] 1.00 £ is equivalent to RM 6.90.

Additional issue raised was the function of SIHAT. In the arguments made by the opposition party, the function of SIHAT does not seen necessary to monitor the performance of the private service provider as it costs additional £1.83 Million to the government (MoH, 2003).

1.3 Aim and Objective

It is the concern of this report to generate a better understanding on the causes of the significant increase in the operational costs of the Malaysian healthcare support services.

1.4 Scope of the report

The scope of this report covers the differences between the operational costs of in-house and outsourced provision of healthcare support services. The comparison will be based on the planning of work, the implementation, the performance monitoring, the parties involved and the equipment and machineries used to carry out the tasks.

1.5 Research Methodology

This report has been carried out in two phases. The first covers the literature review scope of outsourcing and interviews with the officers in charge in various departments, division and companies. The interviews were carried in several places based in Kuala Lumpur and one in Negeri Sembilan, both in Malaysia. The interviewed parties are;

- The procurement and privatization department of Ministry of Health
- The engineering services division of Ministry of Health
- Sistem Hospital Awasasn Taraf Sdn. Bhd. (SIHAT)
- Hospital Besar Seremban, and
- Faber Mediserve Sdn. Bhd.

The interview questions were based mainly on the brief history of the management of healthcare support services before and after outsourcing to make comparison. However,

there has been no hard copies evidence found to support the explanation on the history of the healthcare support services before outsourcing. Hence, the arguments and explanations were present totally from the interviews.

Information on the planning and implementation was gathered from Mr. Chua, the chief secretary assistant of Procurement and Privatisation Department while information on the monitoring of performances was gathered from Madam Mohd Tahir, the principal assistant director of the Regulatory Unit and Mr. Che Din, the project technical manager of SIHAT Sdn. Bhd. Feedback from the public hospital was gathered from the hospital's deputy director, Dr. Rusdi of Hospital Seremban while information from the private service provider was gathered from Mr. Hamdan, the senior manager for corporate communications.

The second phase of this report identifies and compares the in-house and outsourced provision in the healthcare support services. The results are later presented in the data analysis chapter.

1.6 Report Outline

This report resides six chapters. The first, introduces the background of the problem, the objectives of the paper, the scope of study and the methodology used.

It then followed by chapter 2 on explaining outsourcing mainly on the scope, the reasons, the benefits, the drawbacks as well as the management of outsourcing. The drawbacks of outsourcing relating to the effects of transaction costs will be emphasized to generate better understanding on the risks related to the hospital healthcare support services. The drawbacks are mainly on the information search costs, the bargaining and decision costs and the policing and enforcement costs. Other risks are the hold-up, asset specificity and opportunistic behaviour.

Chapter 3 introduces the scope and the importance of managing the healthcare support services and the effect of transferring risks to the private service provider and the duration of contract before introducing the structure of the MoH and other related

departments involved in the outsourcing projects. The motive of outsourcing made by MoH is later discussed and the possible impacts on outsourcing to MoH particularly on the advantages and disadvantages created are also explored.

The background of the in-house provision of the healthcare support services were introduced in chapter 4 before further explaining on the services after outsourcing. The process of outsourcing, the additional parties, the contract arrangement, the machineries and equipment used the performance monitoring, the operational costs, the payments mechanism and the implementations are also explored. This is to validate the propositions of the outsourcing's drawbacks and to provide ground for comparing the in-house and outsourced provision.

Data analysis is carried out in chapter 5 whereby the findings from the interviews were analysed by comparing the difference based on the aspects explained in chapter 4 and the additional machines and equipment especially the consumables bought by the private companies to carry out the operation contract.

Finally, the conclusions of the findings are made based on the outcomes by linking it to the theories and practicality of outsourcing and transaction costs.

Chapter II

2.0 Outsourcing in Public Services

This chapter introduces the concept of outsourcing particularly on the reasons to outsource, the difference on the motives of outsourcing between the public and private sector, the benefits of outsourcing, the drawbacks and managing the outsourcing relationships. The outsourcing drawbacks which emerge from the transaction costs analysis is then emphasized to generate an understanding on the risks that coupled with the benefits.

2.1 Introduction

The growing trends of outsourcing have emerged in the last two decades (Kakabadse and Kakabadese 2002). Hence, it could not be regarded as a new idea in management (Jenster and Pederson, 2000). Before proceeding on explaining the reasons to outsource it is best to give a general meaning of outsourcing.

2.2 Definitions of terms

Outsourcing is a process of externalising tasks and service previously performed in-house, to outside vendors (Jenster and Pederson, 2000). Hence, it can be seen as an action took to minimize the workload of any practice firm by subletting its services or tasks to another firm.

2.3 The scope of outsourcing

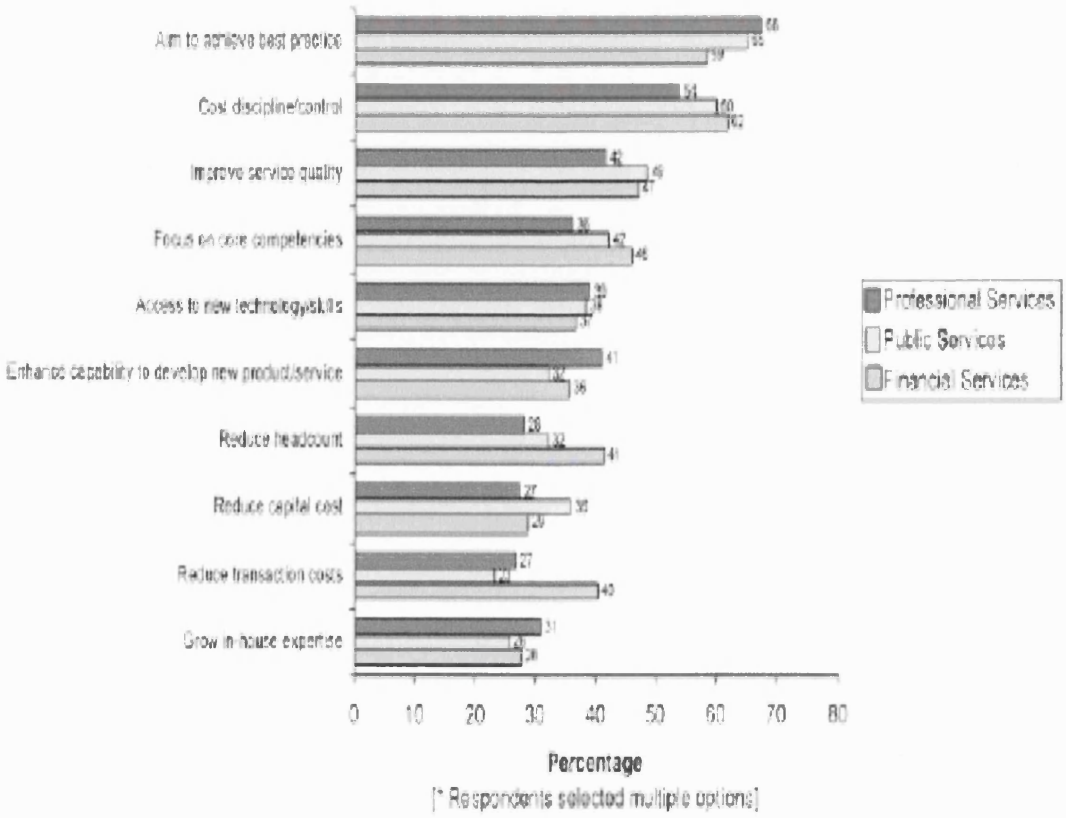
Outsourcing which previously known as contracting out has been recognized and established successfully (Kakabadse and Kakabadse, 2002). There are differences in the aim and arrangement of outsourcing subject to the nature of the firm (Kakabadse and Kakabadse, 2000).

It was only in mid-1990s that the scope of outsourcing outstretched to administrative work (Stright and Candio, 2000). A good example of outsourcing made by the public sector is the move by UK government to contract out the maintenance work of public

services like street lights, management of prisons, maintaining public highways, tax collections, ordinary collections and industrial refuse (Industry Commission, 1996). Beyond production and administrative, information technology has also been bombarded by outsourcing by mid-1990s (Stright and Candio, 2000).

2.4 The reasons

There is a distinctive approach of outsourcing between a public and private sector. While the aims of private sectors are to achieve cost reduction (Kakabadese and Kakabadse, 2002; Burnes and Anastasiadis, 2003), the public sector on the other hand, seeks to "achieve best practice, to improve the cost discipline skills of managers, to improve the quality of the service and to help senior managers focus more clearly on the core competencies of the organizations" (Kakabadse and Kakabadse, 2001, 406). Similar findings are echoed on a study by Burnes and Anastasiadis (2003). The graph 2.4 below illustrates the ten key reasons to outsource among the public sectors;



Graph: 2.4: Sourcing strategies: ten key reasons.

Another study on benefits of outsourcing portrays an increased in flexibility on staffing where "less expenses related to employee salaries, health and benefits, training, administrative costs, and retirements programs are taken into account" (Martin and McDermott, 2001, 47). This is an opportunity sought by the government to reduce government's spending (Kakabadse and Kakabadse, 2001, Burnes and Anastasiadis, 2003).

2.5 Risks and drawbacks of outsourcing

Despite the benefits and advantages offered by outsourcing, there are a few disadvantages emerge. The issue is much related to the risks in transaction costs explained by Williamson (1975 and 1985). The definition of transaction costs given by Williamson (1996, 379) is as follows:

"The ex ante costs of drafting, negotiating and safeguarding an agreement and, more especially, the ex post costs of maladaption and adjustments that arise when contract execution is misaligned as a result of gaps, errors, omissions, and unanticipated disturbances; the costs of running a system".

While additional risks of outsourcing by Domberger (1998) is the costs of transacting, monitoring, controlling, hollowing out, loss of corporate memory, weakened innovative capacity and switching costs.

2.5.1 Transaction Costs Economics

Transaction costs constitute of motivation costs and coordination costs in which have different scopes. For instance, the motivation costs are the costs of motivating specialized agents to align their interests which usually derived from opportunism while coordination costs are the costs of coordinating the actions between the specialized agents and derived from bounded rationality (EncycoGov.com, 2004).

Human beings exhibit bounded rationality whereby they have limitations on information and hence restricts them to process the information (Davies and Lee Lam, 2001) meanwhile opportunism is defined as 'self-interest-seeking with guile' (Williamson, 1985,47) which carries the same meaning as lying, cheating, concealing information and breaking contracts (Davies and Lee Lam, 2001).

There are three elements in the transaction costs mainly the 'search and information costs', 'bargaining and decision costs', and 'policing and enforcement costs' (Ismail, 1997). While according to Davies and Lee-Lam, there are four characteristics of transaction costs. These are as follow;

i) The magnitude to which complete contracts are possible
ii) The magnitude to which there is a menace of opportunism
iii) The scale of asset specificity involved in a transaction
iv) The frequency of the transactions

The first characteristic explains on the difficulty to prepare the contract due to uncertainty and or complexity, bounded rationality, and measurement problems. Furthermore, the drawbacks that might incurred due to writing an over-specified contract is also related to this characteristic. Meanwhile the second characteristic is about the risks of reneging and hold-up whereby there might be a possibility of one party to breach the contract and the latter is on the act of taking advantage over another party's vulnerability (Davies and Lee-lam, 2001).

The third characteristic is the asset specificity. It occurred when an investment is made by one or more parties specifically for the purpose of the contracts and that the value of the investment might be reduced or even lost if it is transferred for another project. This is partially related to the sunk costs and firm's barrier to exits. It can be in the form of site, physical or intellectual, dedicated, human capital and brand-name (Davies and Lee-Lam, 2001).

Finally, the 'frequency' characteristic of transaction costs is related to the number of times the transaction is expected. If the transaction is to be 'one-off' contract, then it is not efficient to bestow huge resources for its coordination and control unless the duration of contract is long enough to overspread the investment made. Research by Lyson (Lysons, 1996, 268) found out that "it will take up to two years before organizations starts to achieve any financial benefits from outsourcing and in some cases the process may be cost natural".

2.6 Managing Outsourcing

The success of outsourcing lies heavily on the managing outsourcing relationships (Kakabadse and Kakabadse, 2001; Burnes and Anastasiadis, 2003; Stright and Candio, 2000; Wechsler, 2002; Malek, 2000; Kakabadse and Kakabadse, 2003; Heikkilä and Cordon, 2002). Wechsler (2002) suggested that defining the function, procedures and supporting processes are the main criteria.

However, from the findings of Burnes and Anastasiadis (2003) showed that the public sector have more stringent relationship that results the gap between the host

organizations and the service provider. It could due to the nature of the public organization which emphasizes on implementing policies rather than seeking maximum profits as pursues by the private sector.

Managing understanding, efficacy and transparent relationship between the service provider and the host organisation are very crucial to achieve the aims and objectives of both parties. Without a transparent understanding of the management strategies and having mutual understanding with vendors, the choice to outsource might result a bad consequences.

2.7 Concluding remarks

Outsourcing is not a new management idea but has been carried out for decades in a different scope and extent. The rapid change in the market conditions has forced not only the private companies but also the public sectors to think of a new way to minimize costs and reducing risks to achieve competitive advantage, best practice and improved service quality.

By contracting out, the public sector will experience more capability to become resilient to almost all market changes. In addition the public sector can reduces and control operating costs, as it can concentrate on its core competence and improve the quality of its support services.

Unfortunately, coupled with the benefits are the risks. Problems in transaction costs like the opportunistic behaviour, hollowing out, loss of dependency, confidentiality and security issues, and changes in the balance of power in the industry creates several drawbacks in outsourcing.

Favorably, the risks of outsourcing can be reduced by effective outsourcing management. The core of effective outsourcing management lies in the mutual understandings.

Chapter III

3.0 Outsourcing in Malaysian Healthcare Support Services

This chapter delineates the healthcare support service, its scope of services, the importance of managing it efficiently and the behaviour of the private service provider on the transfer of risks and the contract duration. Later it introduces the structure of the Malaysian Ministry of Health and all the related departments and companies that are involved in the outsourcing projects. It then further discussed the advantages and disadvantages that might be experienced by them.

3.1 Introduction to healthcare support services

There are two types of facilities maintenance namely the soft and hard services. The soft services are about assuring that the building or an area is cleaned properly and orderly or monitoring the performances of contractors while on the other hand, the hard facility maintenance refers to the building maintenance work. Example of the building maintenance works are ensuring the air conditioning of buildings is operated efficiently, reliably, safely and legally. Facilities maintenance ranges from the small, medium to large operational scale (Encyclopedia.thefreedictionary, 2004).

The contract duration and the scope of works involving the transfer of risks to the private service provider will give certain impacts to their behaviour and costing. These are related to the risk aversion and bounded rationality theory. The riskier the scope of works awarded, the higher the operation cost's charged (Ive, 2004). "Risk averse is an act of preferring safer returns even if they are on average smaller (Oxford Dictionary of Economics, 2004).

From the Draft of Appraisal and Evaluation in Central Government prepared by the HM Treasury (Green Book, 2004,52) it mentions that; "The longer the period over which the costs and benefits extends, the bigger the difference in timing between costs incurred and the benefits received".

Hospital organisation has two separate and distinct goals (Oni, 1994). They are the needs to support the consultant staff whose duties are to provide medical care and the

physical and emotional support for the patients. Since the main clients of the hospitals are the patients, it shows just how important the support services are and the consequences to the hospital's main function if it is not managed efficiently. The illustration of the components of hospital business is as figure 3.1 below;

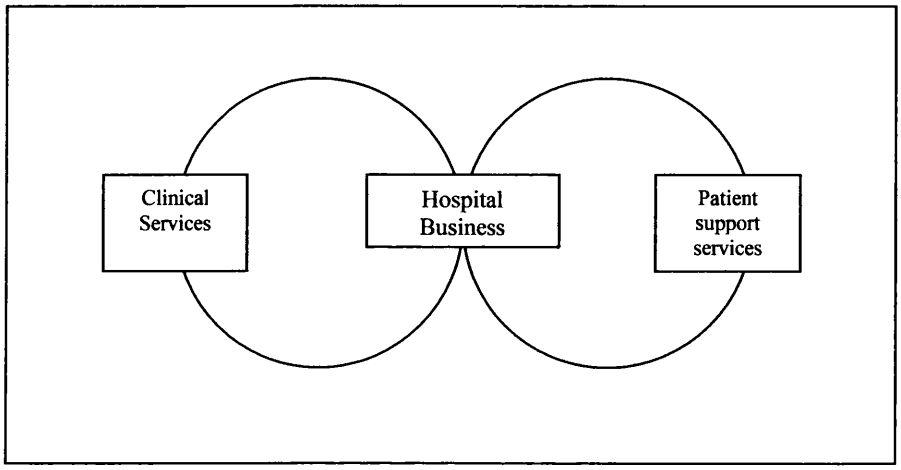


Figure 3.1: Components of the Hospital Business

Healthcare support services usually receives little attention from the hospital management and were regarded as less important compared to the clinical. This is supported by a study by Clark and Rees (2000) that claims the importance and contribution of facilities management in the delivery health care was not regards as a 'true profession'. Earlier, in 1948 the supporting services of the hospitals were organized separately. However, there has been an increased in the level of awareness on the importance of the healthcare support services lately mainly in the UK (Clark and Rees, 2000).

3.1.1 The support services

The peripheral services that categorised under the healthcare support services are cleaning, the facility engineering maintenance, linen and laundering, biomedical engineering and clinical waste management. Table 3.1.1 that follows shows the types of services under the healthcare support service provision.

No.	Type of Services	Scope of Work
1.	**Cleaning**	It covers the work for cleaning the hospital area inclusive of the wards, clinics, operation theatres, pharmacies and surrounding areas. It includes the supply of the consumables like toilet paper and hand detergent.
2.	**Facility Engineering Maintenance (FEMS)**	It covers the maintenance of mechanical and electrical engineering systems and plants, civil engineering works including building roads, drains, water supply, sanitary plumbing and sewerage system as well as ground maintenance and pest control.
3.	**Clinical Waste Management (CWM)**	It involves the collection, storage transportation, incineration, and disposal of clinical waste in an environmental-friendly manner.
4.	**Linen and Laundry (LLS)**	It includes the collection, laundering, finishing treatment, repairs, distribution, linen supplies and management of hospital items.
5.	**Bio-medical Engineering Maintenance (BEMS)**	It includes engineering maintenance services of all medical diagnostic, therapeutic, operating theatre, laboratory, radiology, electronic and other associated equipment and spare parts.

Table 3.3.1: Type of services under the category of healthcare support services

Only two types of services will be concentrated in this report as it is more relevant to the construction industry particularly the facility engineering maintenance and cleaning services.

3.2 Introduction to the Malaysian Ministry of Health

Ministry of Health (MoH) is one of twenty five ministries under the Malaysian Federal Government (Malaysian Civil Service Link, 2004). In accordance with the government's policy towards privatisation in 1994, the ministry has taken several moves by rearranging

its organisation structure by upgrading the former Contract and Support Branch to a department.

The organisation structure of MoH consists of a parliamentary secretary who reports to the parliament regarding healthcare issues and updates. It then splits into two divisions that consist of deputy secretary general and deputy general (MoH, 2004). The details of the organization structure are as the chart 3.2 that follows.

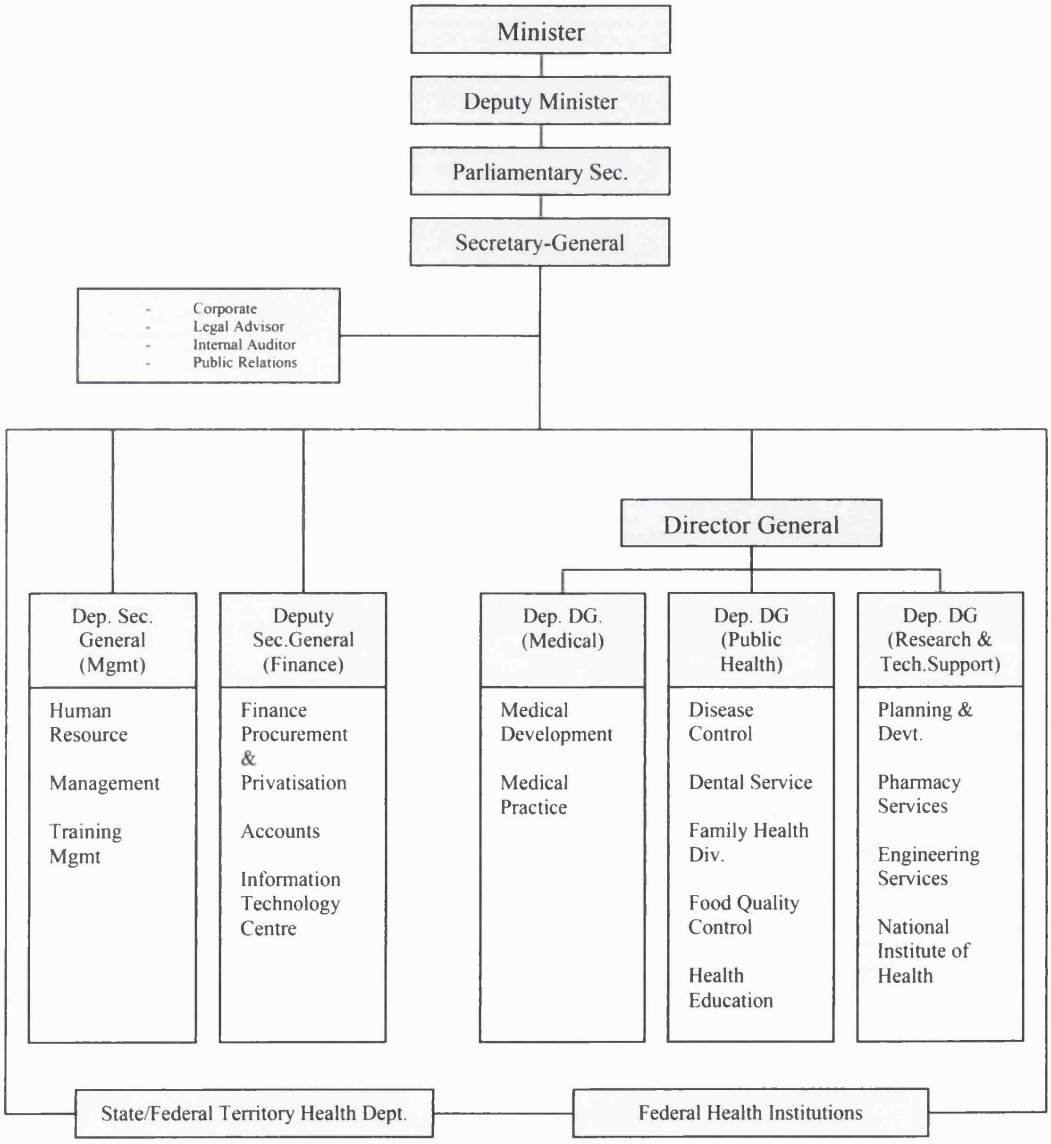


Figure 3.2: the organisation structure of MOH

3.3 Roles and Responsibility

The management of outsourced healthcare support service is done in several level of management and managed by department of Procurement and Privatisation Department in conjunction with all the public hospitals nationwide (Chua, 2004).
The following are the parties involved in the management, implementation and monitoring of performance of healthcare support services before the implementation of outsourcing policy.

3.3.1 Introduction to Procurement & Privatisation Division

The procurement and privatization division was known as Contract and Support Branch under the provision of Secretary Department, Finance Department of MoH. It then upgraded and changed its name to Contract and Support Department in 1993 before finally changes its name once again to Procurement and Privatisation Department and further divided into two sections namely the Privatisation Management, Administration, Asset and Store Branch and Procurement Management Branch (MoH, 2004).

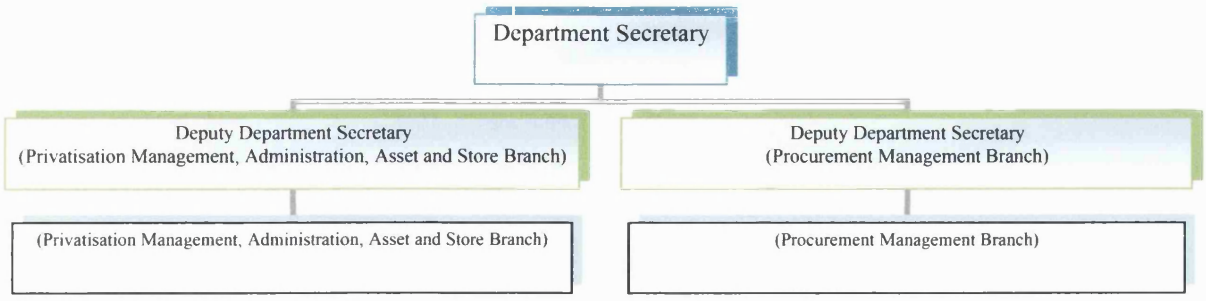


Figure 3.3.1: the organization structure of Procurement and Privatisation Department

The functions of the department are to plan and manage the administration, implementation and monitoring of hospital support services, outsourcing, asset and store in line with Malaysian healthcare policy. They are two departments namely the procurement management branch and the privatization management, administration,

asset and store branch each specializing in their own objectives and functions (MoH, 2004).

3.3.2 The Hospital Management

Malaysian public hospitals have its own organization to carry out tasks in the clinical and general management. The hospital is lead by the director and assists by two deputies managing the general and clinical management. Figure 3.3.2 below represents the hospital's organization structure.

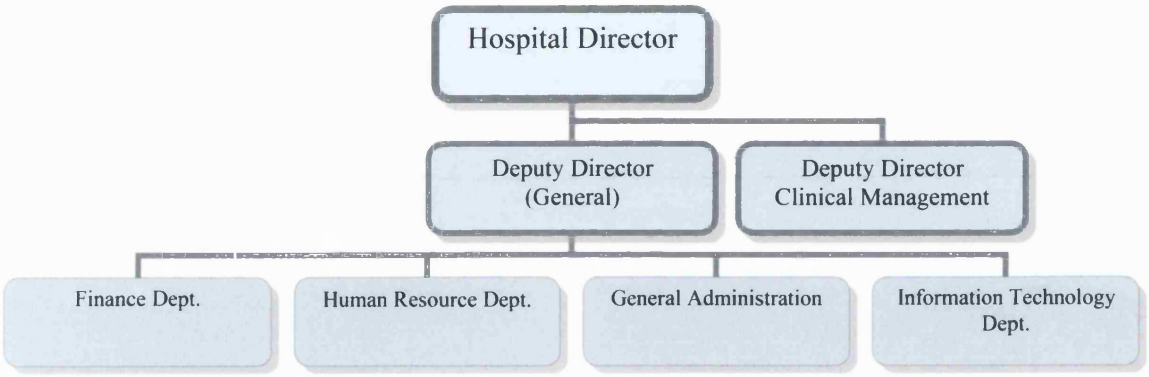


Figure 3.3.2: The organization structure of Malaysian public hospitals

Apart from the director and deputy director, there are also the administration level, supervisor level and the matron level (MoH, 2004).

3.4 The objectives of outsourcing the Malaysian healthcare support services

By and large, the implementation of the outsourcing policy is to imports the efficiency and productivity of the private sector beside seeking to reduce its spending on financial and administrative work as well as concentrating on its core competence in providing clinical service to its patients. It is hoped that the ministry will gains several advantages by outsourcing the healthcare support services to the private service provider (Mohd. Tahir, 2004).

3.5 The possible benefits received by outsourcing

As noted in the second chapter, outsourcing is expected to provide MoH to concentrate on its core competence as well as saving the administrative works and financial spending on the salaries of healthcare support service's staffs, pensions, utilities bills and depreciation of machineries and equipment costs.

In addition, it is expected that the quality of the healthcare support services and the clinical services improved as the burden of managing the healthcare support services are transferred to the private service provider whereby they have the incentives to deliver the service efficiently. Moreover, MoH should be able to concentrate on buildings its own in-house expertise mainly in the clinical services particularly in providing staff development programme.

Furthermore, it is expected that MoH can reduce its financial spending on maintaining the facilities maintenance of its public hospitals. The costs of purchasing and maintaining the air-conditioning, mechanical ventilation and many more cans be borne by the private service provider. Consequently, MoH should become more flexible in making plans and changes for the benefits of its ministry.

Moreover, it is expected that by stretching the contract period to a long term contract, it enables the facilities management contractor to invest in machines, equipment and staff training to improve the quality of their services. Long contract duration enables the private service provider to receive the return on their investments.

3.6 The possible disadvantages received by outsourcing

As noted, coupled with the some of the advantages are the disadvantages related to the transaction costs. In the case study, MoH might face problems involving the additional expenditures on the risks related to the search and information costs', 'bargaining and decision costs', and 'policing and enforcement costs'.

Due to the complexity and the duration of the contract, each parties will tries its very best to safeguard their interests and security due to the bounded rationality and opportunistic behaviour that one might exercise over another. Hence, to protect and safeguards all parties, a special contract should be created. The contract preparation itself will incur additional spending.

The massive transformation of the healthcare support services to private service provider needs to have mutual agreement by both parties. Hence, the bargaining and decision making costs might attains another additional spending. In addition, extra costs might arise due to the policing and enforcement costs involving a mechanism to monitor and protects both parties.

3.7 Concluding remarks

By understanding the scope and the importance of managing the healthcare support services efficiently and effectively will provide and understandings on the needs to outsource those services. Introductions to MoH will provide an overall view of the organisation structure and parties involved in the management of the healthcare support services. Moreover, by understanding the motives towards outsourcing made by MoH will give a better understanding on the advantages and the disadvantages of outsourcing.

Chapter IV

4.0 Case Study: Malaysian Healthcare Support Services

This chapter is divided into two parts. The first introduces the management of healthcare support services before the implementation of outsourcing policy and followed by explaining the outsourcing process made by MoH. Later it explores the management of healthcare support services after outsourcing. Problems in the in-house and outsourced healthcare provision were also explored.

Part I – The management of healthcare support services before outsourcing

4.1 The support services

There were only four types of support services exercised in the Malaysian public hospitals before the implementation of outsourcing policy. The details of the services and its scopes are as Table 4.1 that follows;

No.	Type of services	Scope of works
1.	**Cleaning services**	It covers the work for cleaning hospitals area such as wards, toilets, clinics, offices, operation theatre, and other general area of hospital as well as supply of consumables in certain referral hospitals.
2.	**Facility engineering maintenance**	It covers the work of inspecting, maintaining and repairing the hard facilities management of the hospitals. For example the servicing work of air-conditioning, elevator and other electrical, civil, and mechanical works.
3.	**Bio-medical engineering maintenance**	It includes engineering maintenance services of all medical diagnostic, therapeutic, operating theatre, laboratory, radiology, electronic and other associated equipment and spare parts.
4.	**Linen and laundry services**	It includes the collection, laundering, finishing treatment, repairs, distribution, linen supplies and management of hospital items.

Table 4.1: The healthcare support services carried out before outsourcing

4.2 The planning and implementation of works

The management of the healthcare support services was carried out by the Supply and Contract Department of MoH as well as the general hospital management. For instance, the planning of the facilities engineering maintenance was carried out by the former especially in the process of opening tender for the hard facilities maintenance works whereas the planning for the cleaning services was prepared by the hospital management itself. However, the standards and the quality level of the cleanliness was monitored and prepared by the Contract and Supply department (Chua, 2004). Parties that are involved in the planning and its scope of works are as table 4.2.1 that follows.

No.	Parties	Scope of Work
1.	**Contract and Supply Department of MOH**	Responsible for monitoring the standards and guidelines for the services in general.
		Preparing tender documentation for facility and bio-medical engineering services as well as arranging tender board meeting to appoint the most compatible contractor.
		To monitor the performance of the contractor and preparing the monthly interim payments based on their progress of work.
2.	**General Department of Public Hospitals**	Responsible for specifying the tasks in details as well as planning the overall tasks and preparing schedule of works to its hospital attendants.

Table 4.2.1: The parties involved in the planning of healthcare support services

The implementation of cleaning services were carried out by the hospital management's level while the facility engineering maintenance was carried out by an outside vendor. The table 4.2.2 below shows the person in charge for carrying out work and monitoring of the performances.

No.	Parties/person in charge to carry out tasks	Scope of Work	Person in charge in the performance monitoring
1.	**Cleaning Services**		
	Hospital attendants	Carry out the cleaning works of hospitals area involving the operation theatre, toilets, wards, the administration office, the clinics, the waiting area, the gardens, cafeteria and other surrounding areas.	The hospital supervisor
2.	**Facility engineering services**		
	Facilities maintenance contractors	Carry out by the successful contractor for the inspections, maintenance and repairing works. Works are carried out within the schedule of work as the contract ranging on daily basis for the critical equipment and area like the emergency unit, weekly, monthly, quarterly or even yearly basis for the less critical area like the air-conditioning maintenance in the general area.	The Supply and Contract Departments
		The inspection of the less critical machines and equipment was done by selecting certain numbers of the machines due to the limited funds allocated by the ministry to the healthcare support services.	
		Carry out emergency work that needs to rectify immediately for the case of emergencies unit and operation theatres.	

Table 4.2.2: The parties involved in the implementation of works in house healthcare support services

The inspections of the machines and equipments especially for critical area and equipments like the elevator, operation theatre and the emergency units are very crucial to avoid any disturbance to the services. However, planned preventive maintenance was carried out partially in a certain area like the emergency unit and operation theatre (Nawam, Chua, Dr. Rusdi, 2004).

4.3 The machineries and equipment used

The procurement of machines was brought by the Supply and Contract Department of MoH by the stock and inventory division. Example of the machineries and equipment bought to carry out works are the purchases of consumables for the cleaning services and air-conditioning units and bio-medical equipment such as X-ray and CTScan for the facilities engineering and bio-medical engineering services (Nawam, Chua, 2004).

4.4 The operational costs

MoH has allocated a lump sum of £25M per year for the planning and execution of healthcare support services inclusive of the hard and soft facilities maintenance. The amount was allocated for the costs of appointing the facilities management contractors and bio-medical specialists to carry out the inspections and maintenance costs, the purchasing and maintaining the linen for the linen and laundering services, purchasing of machines and equipment as well as the consumables used for the cleaning services (Chua, 2004).

4.5 The payments mechanism

The allocation for managing the healthcare support services was exclusive of staffs salaries, pensions, utilities bills, depreciation and rental of space. The payments mechanism made to the outside vendors were made through a special contract prepared by the Contract and Supply Department of MOH similar to the traditional contracts in the construction work whereby the contractor receives a monthly payments according to its performances. Additional payments will be made to the contractors for variation of

works mainly on the emergency work for rectifying the service for system breakdown (Chua, 2004).

4.6 Problems with the in-house healthcare support services

As noted, the healthcare support services were not regards as much important compared to the healthcare clinical service. Hence the planning and management of the support services was done inefficiently. The standards, guidelines and monitoring of performances of the services were not properly recorded and followed. Moreover, there were no incentives available to the support service's staffs and the contractors appointed for the facility engineering works. Hence, the quality of the systems was poor. (Nawam, 2004).

The schedule of cleaning services and its frequency was not clearly specified. Hence it leads to the poor quality of the services (Nawam, Dr. Rusdi, Chua, 2004). On the other hand, the planning of work for the facility engineering maintenance appears to be better off and has been managed although it was not at effective level. The schedule for inspections of the electrical and mechanical equipments was allocated and followed accordingly, but was done by selecting the devise randomly due to the limited budget allocated by the ministry to the support services. Thus, it affects the quality of the services due to the system breakdown (Nawam, Chua, 2004).

The amount allocated was very small compared to the workload that needs to be carried out (Chua, 2004). As the consequences, the machineries and equipments available to carry out the work was limited and that only a few numbers of machineries available at certain hospitals. Usually referral hospitals like Hospital Kuala Lumpur will be given the privilege. In addition, the cleansing chemicals used to execute the cleaning works are of superior quality (Nawam, Chua, 2004).

According to Mr. Chua (2004), there were few items excluded in operational cost's calculations. Costs like payments of staff's salary, over-time payments, utility bills, rental space, stationery, taxes and depreciation costs were not recorded and included and were borne by the ministry under a difference fund. Hence, the exact amount spent during that time could not be quantified precisely.

Part II – The management of healthcare support services after outsourcing

4.7 The outsourcing process

The decision to outsource involves an expenditure of about £73M per year for an agreed operation period extending over 15 years. The contract is different with the typical facilities management contract whereby the contract duration is longer and wider in scope. It involves the management and provision of clinical waste management, cleaning, linen and laundering, facility engineering maintenance and biomedical engineering maintenance of 123 hospitals and 4 health institutions. The transfer of the management especially the facilities maintenance services excludes the ownership of the public hospital's buildings but only the machines and equipments (Chua, 2004).

An open tender was carried out in 1993 to select the most capable companies. Thirty companies all over Malaysia have put their bid in the tender (Chua, 2004). A special committee was formulated out of various department and division to manage the outsourcing project effectively. It includes the Ministry of Health Privatisation Steering Committee, the Technical Committee, the Technical Sub-Committees, and the State and Hospital Support Services Committees (Pillay, 2004).

The tender board committee has agreed to appoint three companies based on their financial capability, personnel, proposed methodology of executing works and their physical equipments. The companies were selected on a regional basis. The three companies are as follows:

No.	Name of Companies	No. of Hospitals and Institutions awarded	State
1.	Faber Mediserve Sdn. Bhd.	71 hospitals	Perlis, Kedah, Penang, Perak, Sabah and Sarawak
2.	Radicare Sdn. Bhd.	33 Hospitals & Health Institutions	Wilayah Persekutuan, Selangor, Pahang, Terengganu and Kelantan
3.	Pantai Medivest Sdn.	19 Hospitals	Negeri Sembilan, Melaka and

	Bhd. (formerly known as Tongkah Medivest Sdn. Bhd.)		Johor

Table 4.7: List of appointed concession companies

As soon as the contract has been awarded, a series of meeting between the private service provider companies and the specially formulated committees of MoH on the outsourcing project has been carried out to negotiate the operation contract mainly on the additional item in the scope of support services works, output specifications, the transfer of machineries, equipment and the government's servants, the contract duration, the monitoring of performance and job's indicators (Pillay, 2004).

In addition to the contract, a comprehensive nationwide Computerised Management Information System (CMIS) together with the ISO 9000 and the Quality Assurance Program has been integrated to auto-pilot the project. The system is newly introduced and has been tailored for the outsourcing project. Apart from that, a special deduction formula and various guidelines and procedures were developed to manage effectively and ensure the quality of the services performs by the private consortia as well as complaint station and hotlines situated in all the contract hospitals in the hope to have a transparent supervision of the whole project.

The three companies were officially appointed on the 28th October 1996. They were given three months to planned and manage the transfer of 2681 government servants previously worked in various department and units of MOH. Finally on the 1st January 1997, the three companies started their contract officially (Pillay, 2004).

4.8 The outsourced support services

The outsourcing project involves the management and operations of hospital support services in medical institutions, general, district and nucleus hospitals. They are required to provide effective and efficient management to the five support services inclusive of all the necessary instruments, procedures and standards agreed in the Concession Contract (CA). The general requirements as stated by the ministry is as follows;

- "Clinical waste management inclusive of the storing, collecting, transporting, treatment (incineration) and disposal of clinical waste;
- Cleansing services for wards, clinics, and other areas within the CA, inclusive of cleansing operations theatres, laboratories, pharmacies, and allied areas within the Contract Hospitals boundaries;
- Linen services inclusive of collecting, laundering, distributing, supplying linen and management;
- Facility engineering maintenance services for the maintenance of all mechanical and electrical engineering systems and plants, civil engineering systems and plant, civil engineering works including buildings, roads, drain, water supply, sanitary plumbing, and sewerage systems as well as ground and landscaping;
- Bio-medical engineering maintenance services for the maintenance of all diagnostic, therapeutic, laboratory and other associated and allied equipment to be used for the services" (Concession Agreement-General Requirement, 2004).

The development of the incineration plant is perhaps to be the most significant contribution to the healthcare support services and subsequently to the operational costs. To generate better understandings on the difference of the in-house and outsourced service provision, the followings are details explanation on the additional items needed to ensure an efficient and effective management of the outsourced Malaysian healthcare support services.

4.9 Additional organization created and its functions due to outsourcing

MoH is seen very keen at ensuring a transparent outsourcing process and that the project runs effectively to fulfill its main objective. Later in 1998, the ministry has created an independent unit to assist the ministry on providing a close monitoring of performance to an independent consultant known as Sistem Hospital Awasan Taraf Sdn. Bhd. (SIHAT). It was officially formed in March 1998 consisting of 7 senior engineers and a deputy engineer. The appointment of SIHAT involves additional spending by the ministry of approximately £1.5M per annum (Pillay, 2004). Figure 4.9.1 shows an overview of the role of SIHAT as well as the interconnections between the parties involved in the outsourcing projects (Chua, 2004).

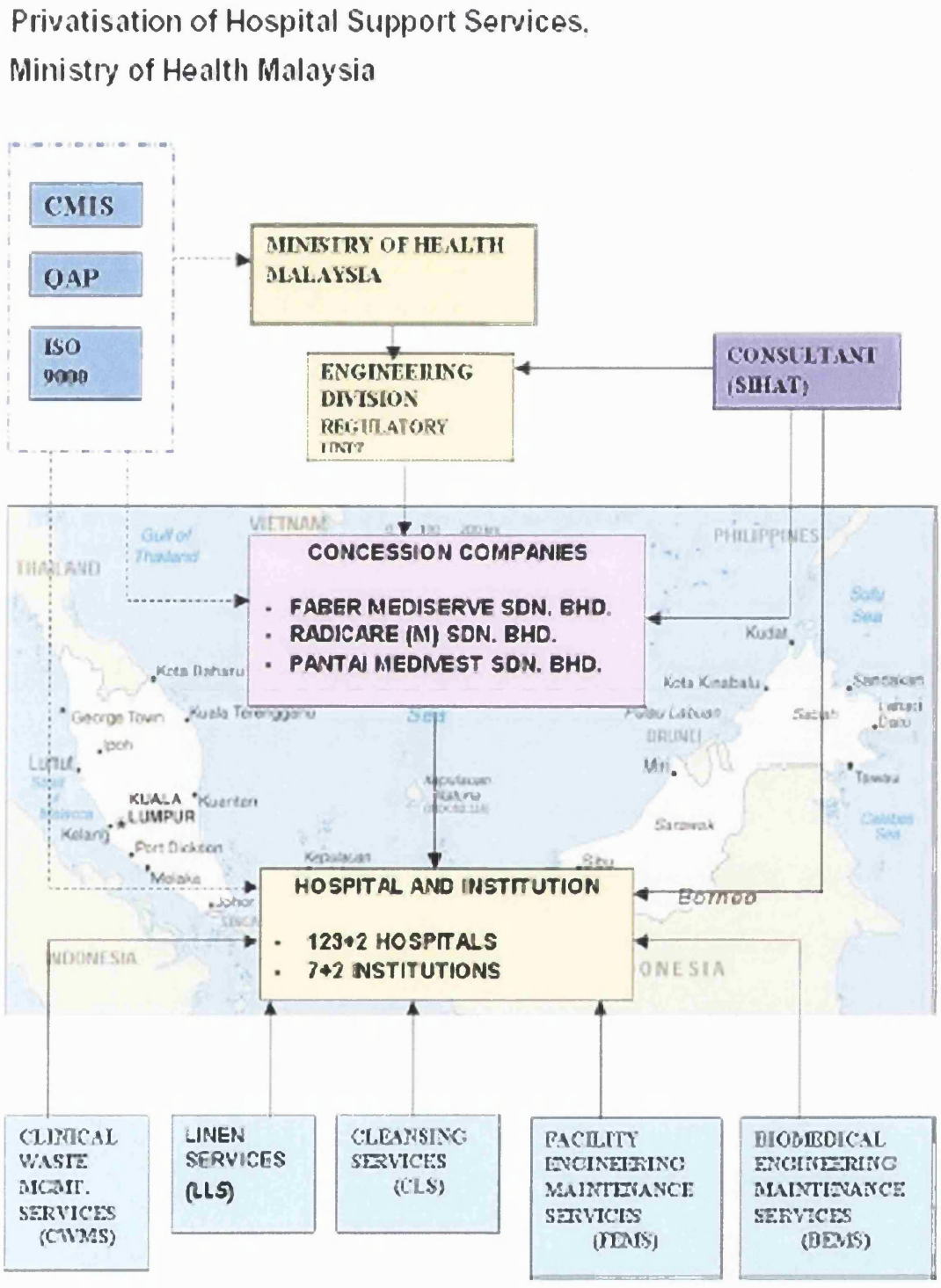


Figure 4.9.1: Parties involved in the management of healthcare support services after outsourcing

4.9.1 Introduction to Engineering Services Division

This Section was created on 1st September 1996 consisting of 7 senior engineers and a deputy director with the aim to monitor, safeguarding and ensure the effectiveness and efficiency of the hospital support services outsourcing project. However, only in march 1998 that it was announced officially by the MoH. This division alongside the procurement and privatisation division manage the Concession Agreements and formed the technical policies, standards, guidelines, procedures and circulars (Pillay, 2004).

4.9.2 Introduction to Sistem Hospital Awasan Taraf Sdn. Bhd. (SIHAT)

SIHAT is an independent consulting company formed in 1994 with a ISO 9002 certification. The main function of SIHAT is to assists the Regulatory Unit in supervising the projects and provides necessary consultancy services to the ministry. Accordance to the contract, SIHAT has deployed 101 consultants and technical surveyors to manage effectively the supervision works. It has established a wide network of offices throughout the nation comprising of seven zone offices and eighteen site offices at major General Hospitals.

In addition, SIHAT has developed the necessary instruments and state-of-the-art ICT based database systems to support the services. The organization structure of SIHAT is figure 4.9.2 that follows;

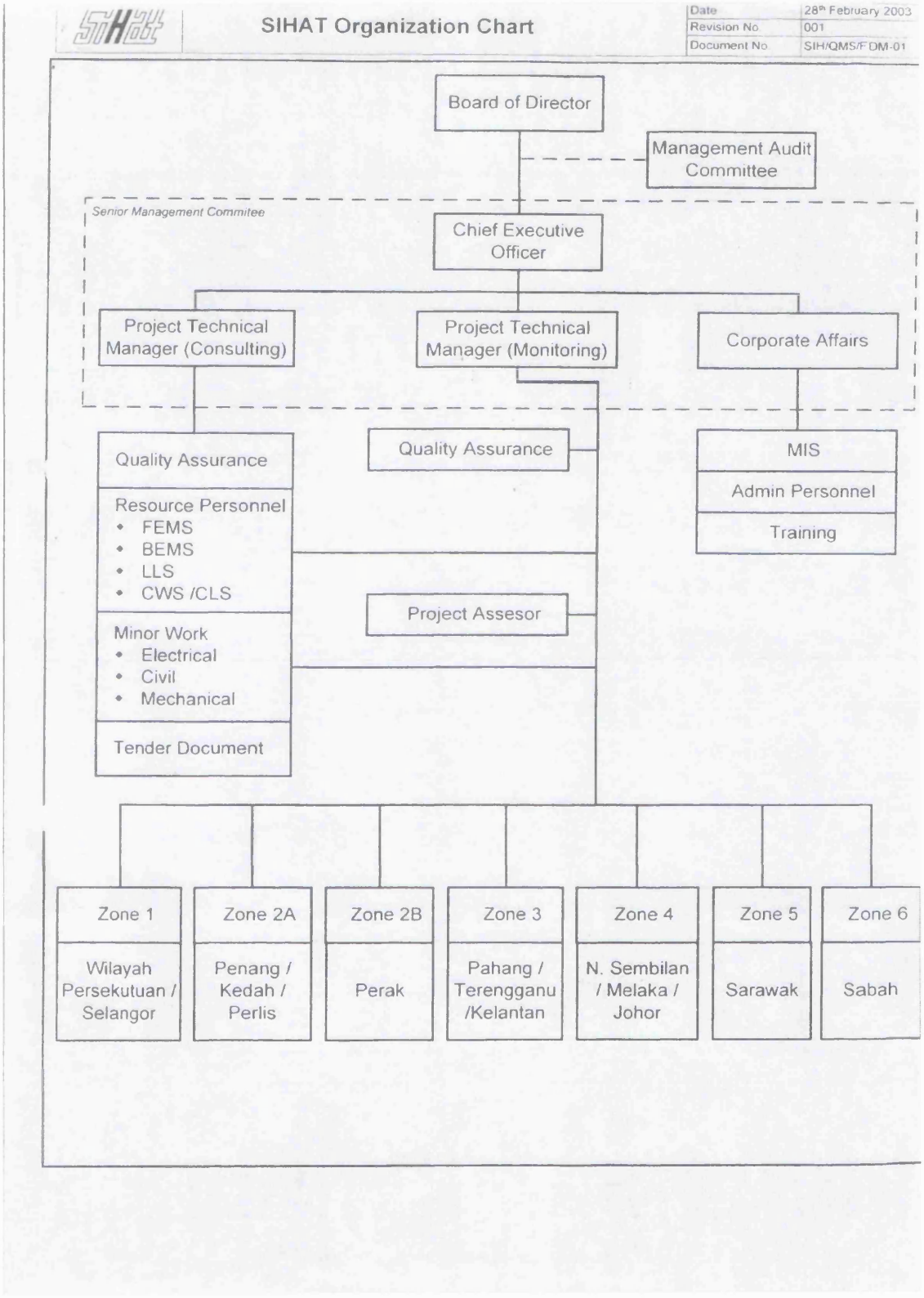


Figure 4.9.2.1: SIHAT Organisation's Chart

The role of SIHAT goes beyond monitoring of performances of the service provider. It ranges to the report preparation on monthly and yearly basis. The reports are on the performance as well as preparation and submission of invoices before submitting it to SIHAT. Figure 4.9.2.2 shows an overall view of the processes and the role and function's of SIHAT.

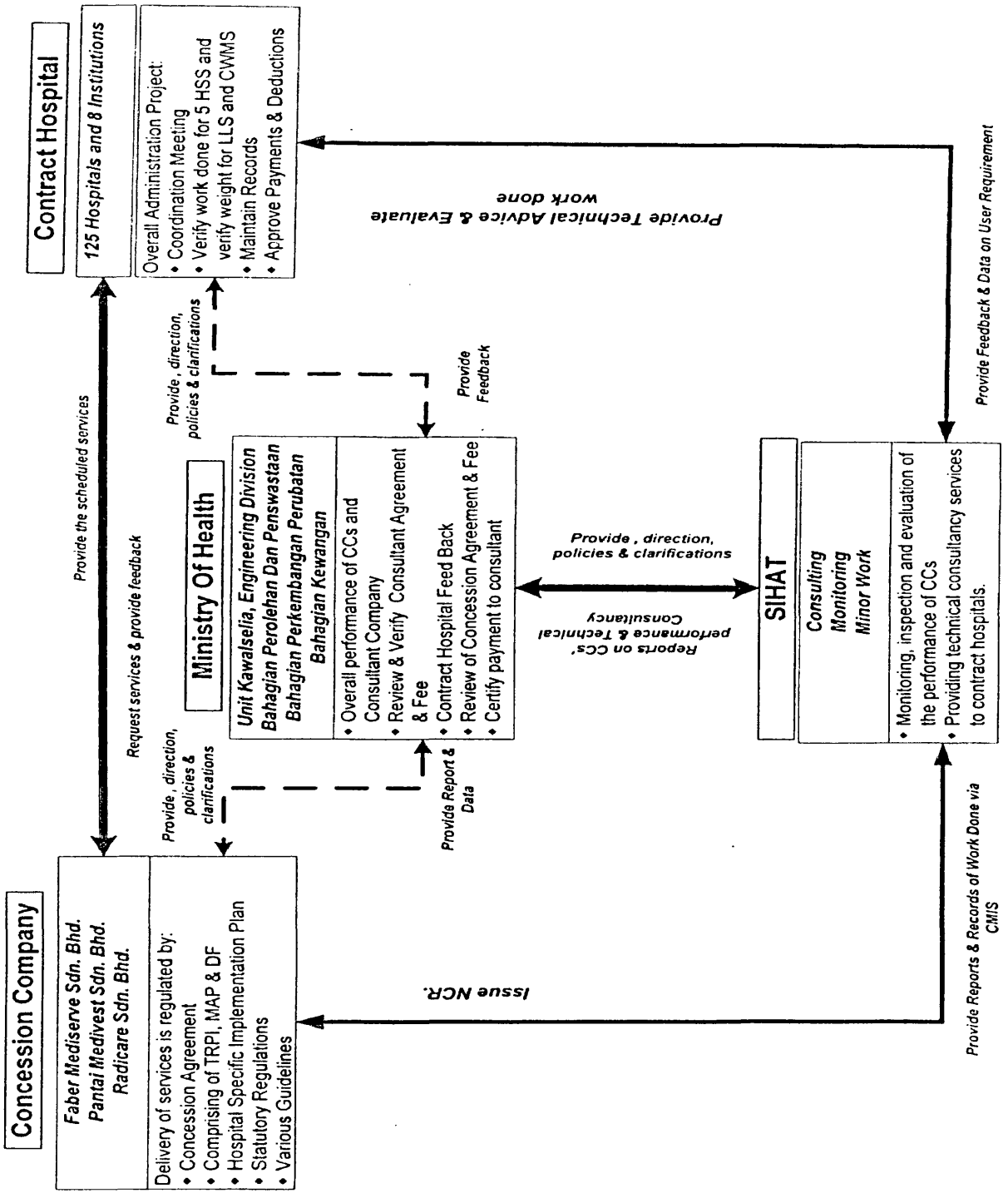


Figure 4.9.2.2: Overall view in the roles and functions of SIHAT

There are also hospital's committees in assisting the hospital's management to plan and supervise the works. There are several committees namely the hospital development, the Quality Assurance Programme, Weekly Management Meeting, Drug's Committee, Finance and Productivity of Quality. However, the Weekly management meeting is the one responsible for monitoring of performances of the healthcare support services (MOH, 2004).

4.9.3 The private service provider

The appointment of the three private consortia was based on their technical and financial capabilities. The three companies have contributed their resources in helping the MoH in ensuring a better quality of healthcare support service. Radicare Sdn. Bhd. and Faber Mediserve Sdn.Bhd. have been accredited with the ISO 9000:2000. Each company has their own resources in the means of financial, technical knowledge, technology and human resources to carry out the healthcare support services. Due to the limitation for words, this report has to be selective. Hence, the Faber Mediserve Sdn. Bhd. has been selected to provide a brief view of the service provider.

At current, Faber Mediserve Sdn. Bhd. is Malaysia's largest and most experienced in Wellness Support Services Company, and a leading pioneer in the wellness industry. The company incorporated in 1995 and began its operations in 1997 with the 70 hospitals of MoH (Faber Mediserve, 2004).

4.10 The planning and implementation of work

As noted, the moves towards outsourcing created a few additional parties in almost all the level of management. The table 4.10 below shows the additional and existing parties and its new function, the implementation and the monitoring of performance.

No.	Parties/Person in charge to carry out tasks	Scope of Work	Parties/Person in charge in the performance monitoring
		Cleaning Services	
1.	Private Service Provider	Cleaning Services inclusive of use of appropriate tools and equipment, chemicals and detergents, supplying of liquid soap, soap dispensers, deodorizer and air freshener.	Weekly Management Quality of the Public Hospitals, Regulatory Unit and SIHAT
		A proper schedule of work stating the areas, degree of cleanliness and frequency of work as well as the emergency work.	
		Facility Engineering Services	
2.	Private Service Provider	Carrying out the work for inspection, maintenance and repairing work of all the hard facilities management of civil, electrical, mechanical and landscaping works of the hospitals.	Weekly Management Quality of the Public Hospitals, Regulatory Unit and SIHAT

Table: 4.10: Parties involved in the implementation of the healthcare support services

4.11 The machines and equipment

Due to the incentives received by the private service provider for providing a better quality services, additional and more appropriate machines and equipments has been brought by them. Machines and equipment like floor polisher and other consumables like the paper towels, deodorizer, air freshener and soap dispensers are now provided to improve the quality of the services. Existing machines and equipments for the bio-medical and facility engineering services previously owned by MoH were transferred to the private service provider (Chua, 2004).

4.12 The Operational Costs

Unlike before, the operational costs of healthcare support services are now properly recorded and kept. Additional an assured budget allocations from the MoH of £73M per year is now available. The large amounts allocated are seen as the concerns of the ministry to improve the quality of its hospital business.

Additional costs surface from the additional items bought into the provision of healthcare has resulted a significant increased in the first year of its implementation. Likewise, the operational costs involves the costs of transfer of hospital's staff, the utility bills, the costs of space rental, the transfer of the MoH's facilities and biomedical engineering services and the depreciation costs.

Moreover, the development of the computerised management information system to monitor the overall progress of the outsourcing projects, additional clinical waste management and the new build incineration plant, and the appointed of SIHAT has contributed to the increased operational spending. However, as noted quantitative comparison could not be made due to the difference weight age of the calculations for the operational services.

4.13 The payments mechanism

A more comprehensive payments structure has been developed through outsourcing. As agreed in the contract, the private service provider will be receiving an annual lump sum payments subjects to its performance. The amounts were divided into monthly payments whereby the amount of work to be received will be deducted by MoH as per SIHAT's performance monitoring records.

A special deduction formula has been formulized. Example of the formula deductions and assessments form can be referred to Appendix A. Complaints received from public users, the hospital's weekly assurance and the regulatory will be collected and calculated in the deduction formula. While on the other hand, payments to SIHAT is based on a monthly payments as agreed in a special contract between MoH and SIHAT (Chua, 2004).

4.14 The benefits of outsourcing

There has been a general improvement to the level of services after the outsourcing implementation. Eloquent improvements are apparently realised and relished in the cleaning and clinical waste management (Pillay, 2004). Feedbacks received from the deputy director of general hospital management, Dr.Rusdi (2004) supported the statements made by Dr.Pillay. It is expected that the quality of the linen and laundering services, facilities engineering maintenance services and biomedical engineering services will follow suit.

The long duration of the operation contract enables the private service provider to stretch its capital expenditure particularly on the development of the computerised information management, development of incineration plant, purchasing of existing machines and equipments of MoH, transfer of staff and the development of the incineration plant for the clinical waste management services. In addition, it enables the private service provider to builds their experts in managing the healthcare support services by providing training for its staff as well as planning and purchasing additional equipment to carry out the work more efficiently.

Apart from the improved level of quality, the MoH is now more flexible and able to concentrate on its core competency. Programme development like staff training and educating the public users can now carried out more efficiently. The details of the benefits received can be seen in Appendix B.

The impact of outsourcing has caused a handsome allocation from the MoH for the hospital support services. The increase expenditure from £24M to £73M per annum is expected to improve the quality of the services. In addition, outsourcing has created more job opportunities to the public as the private service provider appoints about 10000 manpower comprising of various expertise and trades to carry out the contract (Pillay, 2004).

4.15 The drawbacks of outsourcing

Despite the benefits of outsourcing, there are several problems arise due to outsourcing. Perhaps the obvious problem is the increased in the operational costs of outsourcing.

A comprehensive standards and guidelines have been prepared. For example, the preparations of the output specification by MOH have to undergone an inspection and checklists on the actual needs of the ministry and its hospitals. Series of negotiations and discussion on the scope of works, standards and guidelines has been carried out to achieve the outcome.

A contract needs to be endorsed to ensure the implementations of the contract as well as safeguarding the safety and interests of both parties.

In addition, the hospital's staffs especially the nurses have trouble in giving out instructions to the private service provider's staff as no longer have control over the support services workers. An obvious case happens in the cleaning services (Chua, 2004).

4.16 Concluding Remarks

There have been several differences in the in-house and outsourced healthcare support service provision mainly in the parties involved, roles and responsibility, type of services, planning of work, implementations, monitoring of performances, machineries used, operational costs, and the payments mechanism. By outsourcing it invites both the advantage and the disadvantages to the host organization.

Chapter V

5.0 Data analysis

This chapter starts by presenting the operational costs of the healthcare support services after outsourcing in the first part. Later in the second part, analysis is done by comparing the services before and after outsourcing. The objective of the comparison is to validate the propositions of the increased operational expenditure due to the drawbacks of transaction costs.

Part I: The operations costs of healthcare support services

5.1 The operational costs of outsourced service provision

As mentioned in the early chapter, there has no proper records on the exact operational costs carried out by the in-house provision. Hence, quantitative comparison could not be made due to the difference in the weight age. Table 5.1.1 shows the operational costs of healthcare support services after outsourcing.

Company	*1997*	*1998*	*1999*	*2000*	*2001*
X	£37,000,000	£38,100,000	£39,600,000	£39,200,000	**£40,100,000**
Y	£21,400,000	£21,800,000	£22,900,000	£22,200,000	**£24,700,000**
Z	£10,450,000	£10,700,000	£11,200,000	£11,600,000	**£11,500,000**
Total	**£68,850,000**	**£70,600,000**	**£73,700,000**	**£73,000,000**	**£76,300,000**

Table 5.1.1: The operational costs of the healthcare support services after outsourcing

The breakdown of the operational costs according to the service types are as Table 5.6.2 that follows;

Services	**Year of Operations**			
	1997	1998	1999	2000
Linen and Laundry Service	£5,700,000	£6,440,000	£7,830,000	£8,750,000
Clinical Waste Management Service	£2,920,000	£2,932,000	£3,260,000	£3,550,000
Cleaning Services	£14,781,000	£15,520,000	£15,620,000	£15,390,000
Biomedical	£14,790,000	£15,420,000	£15,790,000	£14,700,000

Engineering Maintenance Services				
Facility Engineering Maintenance Services	£29,730,000	£30,270,000	£31,100,000	£30,530,000

Table 5.1.2: Breakdown of operational costs according to service type

From the table above, it shows that the Facility Engineering Maintenance took up almost 40% in average of total operational costs of healthcare support services. It then followed by Cleaning Services of 21% average and Biomedical Engineering Services of 20% average.

Part II: The analysis

5.2 Additional items in general

Generally, there has been a significant change in the healthcare support services due to outsourcing. These additional items as per table 5.2 were prepared and developed to ensure an effective and transparent outsourcing projects as well as safeguarding the parties involved.

No.	Scope of Services	Before	After
1.	Computerised management information system	No	Yes
2.	Compliance to Occupational Health and Safety Act	No	Yes
3.	ISO 9000 certification within five years	No	Yes
4.	Compliance to all legislative requirements	Partial	Yes
5.	Implementation of quality assurance program	No	Yes
6.	Deduction and fees due to poor performance	N/A	Yes
7.	Preparations and negotiations of Concession Agreements	No	Yes

Table 5.2: Comparison on General aspects.

From table 5.2 above, it can be seen that the additional items were prepared in order to safeguards the contract and interests of both parties. The followings are the discussion on supporting the propositions that the increased operational costs are due to the transaction cost analysis's effect.

5.3 The causes of the increased operational cost

As noted in the table 5.1.1, the costs of the healthcare support services increase from £25M to nearly £69M in 1997. A 37% increased from the original expenditure is said to be the consequences of a few additional items related to the outsourcing's drawbacks. The following will be the analysis of the transaction cost's analysis factors which contributed to the needs of additional items and subsequently additional parties to the operation contract.

5.3.1 The costs of drafting the operation contract

The need to draft a contract between MoH and the private service provider is due to the risks of bounded rationality and opportunistic behavior of transaction analysis. The preparation of the contract needs to be carefully written to safeguards both parties. It also involves the search and information costs for the preparations of the standards and guidelines for the outsourced services in order to meet certain rules and requirements of the services. For example, the Engineering Services Division of MoH has been created to assists the Procurement and Privatisation department of MoH to prepare the standards, guidelines and the output specification for the contract.

Although the costs of drafting and preparing the contract was borne by the private service provider, the costs however has been included in the operational costs and spread over the duration of the contract.

5.3.2 The costs of negotiating and bargaining

The duration of the outsourcing projects is related to the risk of uncertainty. As noted in chapter three earlier, by transferring the work load to the private service provider, it transfer the risks of uncertainty to the private service provider which will makes them behaving in risk averse. Hence, they tend to increase the price of the contract.

In the case of MOH, additional type of services has increased the risks and hence contributed additional spending. The scope of work for clinical waste management and a few additional scopes are seen as one of the main reasons. Table 5.3.2.1 below shows

additional service while table 5.3.2.2 shows the comparison in the scope of work of the in-house and outsourced provision.

No.	Support Services	Before Outsourcing	After Outsourcing
1.	Cleaning Services	Yes	Yes
2.	Linen and Laundry Services	Yes	Yes
3.	Facility Engineering Maintenance Services	Partially	Yes
4.	Biomedical engineering Services	Partially	Yes
5.	Clinical Waste Management	Partially	Yes

Table 5.3.2.1: Comparison on the type services

No.	Scope of Services	Before Outsourcing	After Outsourcing
	CLEANING SERVICES		
1.	Guidelines on infection control	Yes	Yes
2.	Disinfection and sterilization Policy and Practice	Yes	Yes
3.	Code of Practice for prevention of infection accidents in the hospital, laboratory and post-mortem rooms	Yes	Yes
4.	Universal Infection Control Precautions, MOH	Yes	Yes
	FACILITY ENGINEERING SERVICES		
1.	Comprehensive maintenance of all facilities, plant and equipment including infrastructure, utilities and services	Partial	Yes
2.	Planned preventive maintenance	Partial	Yes
3.	Breakdown maintenance	Partial	Yes
4.	Compliance to legislative requirements	Partial	Yes
5.	Quality Assurance Program for all equipment and systems	No	Yes

Table 5.3.2.2: Comparison on the scope of works between the in-house and outsourced service provision

A complete additional scope of works due to outsourcing can be referred to Appendix C.

5.3.3 The costs of policing and enforcement costs

The involvement of additional parties to the contracts is due to the fact that there has to be some measurement taken to avoid any act of opportunism by another party. For example, before outsourcing, there was no third party to carry and monitor the work and that there were no incentives provided to the staff to carry out the work efficiently. The appointment of a third part to carry out the tasks involving a large sum of contract needs to be monitored to ensure that the contracts is carried out as per the agreement. The appointment of SIHAT costs an extra of £1.5M to MOH (Chua, 2004).

The three tables below show the comparisons of parties involved in the planning, implementation and monitoring works between the in-house and outsourced service provision.

Parties	Before Outsourcing	After Outsourcing
Ministry of Health	Contract and Supply Department	Procurement and Privatisation Department
		Regulatory Unit
Private Service Provider	N/A	The three private service provider: - Faber Mediserve Sdn. Bhd - Radicare Sdn. Bhd. - Pantai Medivest Sdn. Bhd. (previously known as Tongkah Medivest Sdn. Bhd.)

Table 5.3.3.1: Comparison on parties involved in the planning of work before and after outsourcing

No.	Type of Services	Before Outsourcing	After Outsourcing
1.	**Cleaning Services**	Hospitals attendances with no clear scopes of works	Staff of private service provider with clear scopes of works and allocated minimum frequency of cleaning services
		The number of workers are limited and burden with other jobs requirements stated by the hospitals	There has been a significant increase in the number of appointed workers to carry out work with each staff provided with details of work.
2.	**Facility Engineering Services**	For maintenance of medical equipments, the maintenance is usually outsourced to the outside vendor via open tender. Successful contractor will carry out the maintenance work for an agreed period of time as in the contract documents.	Maintenance of the medical equipments is carried out by the in-house expertise of the private service provider itself. The private service provider has appointed their own staff to maintains the medical equipments
		The other maintenance works, involving the electrical wiring and connections is usually carried out in house but limited to the minor only.	All the services under the provision of facility engineering services are done by the staff of the private service provider itself. There has been a proper schedule for the checking of all the equipments
		The buildings maintenance like maintaining the landscapes of the public hospitals is carried out by	The private service provider carries out the mechanical, electrical and civil engineering support. E.g.:

		appointing a contractor by tender selection done by the Contract and Supply Department.	the electrical supply, water supply, medical gases supply, vehicles, fire protection systems, sanitary and sewerage, roads and drains, hospitals grounds, landscaping and pest control.
		The checking of the equipments is made in randomly order.	All the electrical equipments are checked in a special schedule according to the frequency of use as well as the degree of importance of the machine.
		The implementation of the plant preventive maintenance was done partially for some equipment.	Total planned preventive is practiced. The tolerances for it are at an agreed standard.
		Quality Assurance Program was not recognized.	The implementation of the Quality Assurance for all equipments and systems.

Table 5.3.3.2: Comparison on the parties involved in the implementation of healthcare support services before and after outsourcing

To safeguard both parties in the contract, which falls under the category of policing and enforcement costs a more comprehensive and stringent performance monitoring has been planned and practices to achieve value for money for both parties. The sample of the assessment form prepared by SIHAT can be referred to Appendix D.

No.	Type of Services	Before Outsourcing	After Outsourcing
1.	**Cleaning services**	Carried out by the hospital's supervisors.	Carried out by the supervisor of the private service provider's supervisor as well as the hospital's committee management, the regulatory unit and SIHAT.

		The frequency of inspections was not stated to the supervisors.	The frequency of the monitoring of performances has been agreed upon. Besides the monthly inspections carried out by all the related parties, daily and weekly routines inspections is also carried out.
		There were no ad-hoc inspections but the nurses can complaints to the supervisor for any emergency defects that needs to rectify immediately.	There are ad-hoc inspections and complaints from the hospitals staff and public users.
		Complaints from the public users was not regarded as much importance and serious.	
2.	**Facility Engineering Maintenance**	The monitoring of performance of the contractors was carried out by the Supply and Contract Department.	The performance of the machines and equipments is monitored by SIHAT with the aid of records from planned preventive reports and reports from the public hospitals through the CMIS.

Table 5.3.3.3: Comparison on monitoring of performance of the support services before and after outsourcing

5.4 Other causes that contributes to the increased operational costs

Apart from the effects of the transaction cost analysis, there are a few factors that contribute to increased operational costs. For instance, due to poor records management of the operational costs and the separation of the healthcare support services provision with the costs of utilities bills, the space rental, staff's salaries, tax payments and maintenance and depreciation makes the quantitative comparison impossible. Hence, the cause of increased operational costs could not be blame to outsourcing alone.

In addition, as explained earlier in chapter three, the transfer of risks from the public to the private service provider will resulted the act of risk averse by the private service provider. As such, the longer the duration of the contracts, the longer will be the uncertainty.

5.5 Concluding remarks

The effects of transaction costs analysis is seen as part of the reasons in the increased operational costs particularly in the search and information costs, the bargaining and decision costs and the policing and enforcement costs.

However, in the case of MoH, the blame could not be put entirely on the drawbacks of outsourcing as there are no reliable records of historical costs and that there are differences in the calculations of the operational costs. Earlier, the funds allocated for the healthcare support services provision was exclusive of the costs of staff's salaries, utilities bills, rental costs, taxes and the maintenance and depreciation costs.

Moreover, the improved quality of the service provision is passed onto the client as increased operational costs.

Chapter VI

6.0 Conclusions and Recommendations

This chapter concludes the report by refreshing on the aim and methodology used before further presenting the findings and suggesting alternatives to the problem owner and later suggests some related future research.

6.1 Research Overview

In this report, an effort has been made to identify the reasons for a significant increase in operational costs of Malaysian healthcare support services due to outsourcing.

To disclose the reasons for an increased operational expenditure, this reports starts by interviewing the respective individuals from the department of procurement and privatisation of MoH, regulatory unit of MoH, the public hospital, SIHAT and the private service provider using a semi-structured questions on the in-house and outsourced healthcare support service provision.

Explanations on general view of outsourcing particularly the reasons to outsource, the relationship management, the benefits and the drawbacks was made before concentrates on transaction cost analysis which is said to be the main risks of outsourcing. By explaining the transaction costs it helps generate better understandings on the risks of outsourcing.

Investigations on the causes of the increased expenditure were made by looking at the difference in the management and implementation of healthcare support services carried out before and after outsourcing. The problems in the in-house and outsourced service provision was also explored to validate the propositions raised in the earlier chapter.

Finally the causes of the increased operational expenditures was identified and further analysed by relating it to the theoretical context explored in the literature review earlier.

6.2 Key findings

As noted, coupled with the benefits of outsourcing are the drawbacks particularly the transaction costs. Hence this report attempts to validate the propositions.

In the case study, there are several causes identified that helps contribute to the increased operational costs in the healthcare support services. It is expected that the reasons of the increased operational costs is due to the cost of improved service provision that has been passed onto the client and the transaction cost's effect. Causes that related to the transaction costs are the costs of;

a) Search and information costs due to the bounded rationally

The development of the operation contract inclusive the preparations and endorsements costs. Although the costs of preparing the documents contract does not borne by MoH, it has been included in the agreed payments made to the private service provider.

b) Bargaining and decision costs due to the opportunism

The additional scope of works especially the additional service and the transfer of MoH's workers, existing machines and equipment as well as the performance monitoring and payments mechanism.

c) Policing and enforcement costs due to both the bounded rationality and opportunistic behaviour.

The appointment of SIHAT to assists the regulatory unit and the development of computerized management information system to monitor the performance of the private service provider.

Additional costs that does not related to the drawbacks of outsourcing but have created an increased in the expenditures is the additional manpower to carry out the healthcare support services and the utility bills, depreciation costs, interest rate and space renting borne by the private service provider.

6.3 Recommendation for problem owner

The needs to increase the level of awareness on the outsourcing scope will help the Ministry of Health to clarify the reasons for the significant increased of the healthcare support service's operational costs. Initial steps can be taken by providing the information on the benefits of outsourcing especially the improved quality of the services to the public users as well as its hospital's personnel. By educating and increasing the level of awareness of the public users and the hospital's staff, they will know their roles and thus can attract them to participate in the monitoring of performances. As they are more concerns, it can increase the productivity and efficiency of the private service providers as they are now being monitored by more people and that the complaints from them can leads to the fee deductions.

6.4 Recommendation for future research

It is in the interests of the author that the drawbacks of outsourcing be investigated further. The way forward is to develop a more in depth research by selecting a case study whereby the calculations of the operational costs are on the same weight age. Any difference or additional spending should be analysed to find out the causes. The findings of the study can reject or supports the findings from the reports and further contribute to the theoretical concepts of the outsourcing drawbacks.

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Appendix A

Formula Deduction

Proposed Interim Deduction for January 1997 to December 1999

Introduction

This calculation of interim deduction is based on proposal submitted by Faber Medi-Serve Sdn Bhd. The principles adopted and presented by Faber Medi-Serve was based on meeting between MOH and the concession companies that was held at Selesa Hill Homes on 17th to 18th August 2000.

The basis and principle agreed was that the actual deduction derived from the implementation of deduction formula for period of January till June 2000 shall be used. However the interpretation and the formula used was not agreed at that particular time.

The proposal by Faber does incorporate the deduction for the first 6-month of 2000 as the basis of retrospective calculation of fees deduction prior to the implementation of deduction formula (1997 to 1999) that was effectively implemented from 1st January 2000.

In addition to the actual deduction being used as the basis of deduction, the 6 monthly contractor's performance appraisal (CPA) for the first 3 years is used. The use of CPA as a 'loading factor' in calculation of deduction percentage to be applied for the preceding years seems practical and reasonable and can be accepted. Despite the fact that the contractor performance appraisal is subjective to many, these performance rating however gives an indication of trend of performance of the three companies during the period prior to the implementation of deduction formula.

Interim Deduction Formula

From the proposal by Faber Mediserve the ratio of current CPA rating (June 2000) against respective period of appraisals is being used.

Deduction = Base Deduction(Jan to June 2000) x Ratio of CPA

$$D_N = D_B \times (R_N/R_B), \text{ where}$$

D_N – **Corresponding period deduction factor in %**
D_B – **Jan –June 2000 deduction % (first 6 month of 2000)**
R_N/R_B – **Loading factor (ratio of current CPA against corresponding period)**

The formula above is used to derive the percentage of deduction to be ***applied against total monthly service fee*** of corresponding period (6-month). The ratio of R_B/R_N thus can be assumed as **loading factor** or additional deduction applied to the actual deduction percentage of the first 6-month of year 2000. This loading factor confers well with the

agreed principle discussed at Selesa Hillhomes. The full calculations of proposed interim deduction are summarized in

i) Lampiran 1 – Table of calculation of deduction using revise deduction against original CPA assessment figures.
ii) Lampiran 2 – Table of calculation of deduction using revised deduction value against adjusted (modified) CPA assessment figures.
iii) Lampiran 3 – Table of calculation of deduction using original deduction value against original CPA assessment figures
iv) Lampiran 4 – Table of calculation of deduction using original deduction value against adjusted (modified) CPA assessment.

Note : Deduction value is the total deduction for the first 6-month of year 2000 of each service.

Conclusion

From the calculation, there is a reduction of total calculated deduction when calculation made using revised CPA as well as revised deduction value.

Appendix B

Zones (6)		Total	Central	East	South	North	Sabah	Sarawak
Hospitals		134	13+5	24	19+1	30+1	20	21
No. of beds		36,319	5,238	4,668	7,548	11,894	3,311	3,660
Built up area m^2		4,297,523	630,821	471,107	883,415	1,265,405	349,504	697,271
Asset-FEMS		345,826	96,887	137,479	44,114	37,701	14,402	15,243
Asset-BEMS		81,254	24,673	15,069	12,492	16,397	5,145	7,478
Companies		3	Radicare	Radicare	Pantai	Faber	Faber	Faber
Contract value RM Millions per year	FEMS	199.53	29.40	28.99	25.40	60.16	27.28	28.30
	BEMS	100.69	30.14	5.23	14.80	27.54	10.45	12.53
	CLS	100.90	13.80	11.70	19.90	31.58	11.36	12.56
	CW kg	4,500,000	1,000,000	700,000	1,000,000	1,100,000	300,000	400,000
	CW RM	24.48	5.20	3.64	5.20	5.72	2.02	2.70
	LLS kg	18,400,000	3,200,000	2,300,000	4,000,000	5,200,000	1,500,000	2,200,000
	LLS RM	62.73	10.88	7.82	10.00	17.68	6.63	9.72
	Total	488.33	89.42	57.38	75.30	142.68	57.74	65.81

4. Benefits of the Hospital Support Services Privatisation Project

Through privatisation, the amount of budget available for the Hospital Support Services have been significantly increased from about RM 170 million in 1996 to an assured budget of almost RM 500 million a year which significantly financed and improved the standard and level of the Hospital Support Services in all the 127 government hospitals and health institutions. More job opportunities are now available and currently the total number of manpower directly involved in the services is about 10,000 comprising of various expertise and trades. New private investments in the health sector have also emerged specifically in the setup of the highly sophisticated clinical waste incineration and laundering plants that also provide services to the private hospitals and clinics. The privatisation project also encourages the development of new industries related to the Hospital Support Services such as production and supply of consumables, chemicals, and expertise in the country. Various standards, guidelines and procedures are developed to improve the quality and level of services to new heights and targets. The other substantial benefits to the Ministry of Health specifically are further discussed under the different services.

Auto-Pilot - Computerized Management Information System (CMIS), ISO 9000 and Quality Assurance Program

?? The successful development of the unique and sophisticated, nationwide CMIS system to assist in the management of the Hospital Support Services is one of the most prominent achievement of the privatisation project. The used of computerized maintenance and management system was almost non existence prior to the privatisation project.

?? The nationwide integration and adoption of the ISO 9000 standard to organize and audit the provision of the services.

?? The integration and adoption of the comprehensive Quality Assurance Program into the Hospital Support Services will eventually help to identify problem areas and develop rectification strategies to improve the quality of services provided.

Clinical Waste Management

?? The development of CWMS standards and guidelines for the disposal and management of Clinical Waste is now recognized as among the region best system developed and adapted.

?? The installation of 3 sophisticated regional incinerators and 5 on site incinerators in East Malaysia are now available for the government hospitals as well as the private sectors.

?? The development of local industries to produce products such as plastic bags, sharp containers, wheeled bins, bag holders and other accessories

Cleansing services

?? The availability of hand detergent and dispenser, paper towels, toilet tissues and fragrance in all toilets, wash basins and strategic points to improve infection control and cleanliness in public hospitals.

?? Specialized and dedicated hospital cleaning companies have now emerged employing trained cleaners and better cleaning equipment.

?? Approved chemicals, consumables and standardize procedures are used to improve the services to international standard and quality.

Linen and Laundry Services

?? New Hospital Linen List and Standards was developed and linen of high quality are supplied to the hospitals.

?? Regional laundry plants were setup and existing hospital laundry plants were upgraded to provide better laundering services to the hospitals.

?? Organize training are conducted regularly by local and international consultants to improve the laundering process and management of linen supplied to the hospitals.

Facility Engineering Maintenance Services

?? Local maintenance service standards and procedures were developed and practiced to improve the performance and availability of facility engineering systems and equipment.

?? Sufficient budget is now readily available to implement Comprehensive Planned Preventive Maintenance to all plants, machineries and equipment. Less than 5 % of such engineering facilities were on PPM program prior to privatisation due to lack of budget, expertise and manpower.

?? Local computerized Management Information System and data asset register is now established in all hospitals.

?? Complete and comprehensive disaster management plans and contingency plans are now in place in all hospitals to overcome any possible circumstances.

Biomedical Engineering Maintenance Services

?? Local maintenance service standards and procedures were developed and practiced to improve the performance and availability of biomedical engineering equipment.

?? Sufficient budget is now readily available to implement Comprehensive Planned Preventive Maintenance to medical and laboratory equipment.

?? Local computerized Management Information System and data asset register is now established in all hospitals.

?? Loaner equipment and services are also available for critical services during emergency situation.

Appendix C

APPENDIX 1

Comparison of Scope of Services Before and After Privatization

No	Scope of Services	Before Privatization	After Privatization
	CLINICAL WASTE MANAGEMENT		
1.	Supply of yellow bags	No	Yes
2.	Supply of blue bags	No	Yes
3.	Waste containers with lid and peddle	No	Yes
4.	Supply of sharps container	Yes	Yes
5.	Secured and covered central storage facility	No	Yes
6.	Refrigerated storage where necessary	No	Yes
7.	Collection containers and trolleys	No	Yes
8.	Dedicated vehicles for transport	No	Yes
9.	Washing facilities for trolleys	No	Yes
10.	Sewer system connection for facilities	No	Yes
11.	Washing, cleaning and disinfecting	No	Yes
12.	Tagging and identification of waste	No	Yes
13.	Protective equipment and clothing for collectors	No	Yes
14.	Agreed frequencies and schedule of collection	No	Yes
15.	Daily collection and transportation	Partial	Yes
16.	Weighing, documentation and consignment note	No	Yes
17.	Dedicated clinical waste incinerators	No	Yes
18.	Ash Disposal at municipal	Partial	Yes
19.	Build new facilities- incinerators, stores	No	Yes
20.	Buying over existing facilities	N/A	Yes
21.	Payment of utilities	N/A	Yes
22.	Produce automated emission records , operating records from incinerators	No	Yes

Note:

Clinical waste management in the Ministry of Health's Hospitals after privatization meet and even exceed developed country standards and has been recognized as one of the best in the region by WHO.

It is estimated that the scope of services before privatization was only 15% of the new scope after privatization

Comparison of Scope of Services Before and After Privatization

No	Scope of Services	Before Privatization	After Privatization
	CLEANSING SERVICES		
1.	Guidelines on infection control	Yes	Yes
2.	Disinfection and sterilization Policy and Practice	Yes	Yes
3.	Code of Practice for prevention of infection accidents in the hospital, laboratory and Post-mortem rooms	Yes	Yes
4.	Universal Infection Control Precautions, MOH	Yes	Yes
5.	Cleansing standards for hospitals	Yes	Yes
6.	Supply of black waste bags	Yes	Yes
7.	Supply of storage containers	No	Yes
8	Use of appropriate tools and equipment	Partial	Yes
9.	Use of appropriate chemicals and detergents	Partial	Yes
10.	Supply of liquid soap	Partial	Yes
11.	Supply of soap dispensers	Partial	Yes
12.	Supply of deodoriser, air freshener	Partial	Yes
13.	Supply of paper towels and toilet rolls	No	Yes
14.	Supply of bins with lid and foot peddles	Yes	Yes
15.	Covered central storage facility for waste	No	Yes
16	Specified cleansing frequency	Partial	Yes
17	Sewer system connection for washing and storage areas	No	Yes
18.	Build new storage and washing facilities	No	Yes
19.	Upgrade existing facilities	No	Yes
20.	Purchase of existing tools and equipment	N/A	Yes
21	Rental/ leasing of premises	N/A	Yes
22.	Payment of utilities	N/A	Yes

Note :
The scope covers all areas of the hospital. The frequency of cleaning as well as the standards have been specified in detail. The cleaning standards before ion were not satisfactory before privatization resulting in numerous public complaints.

It is estimated that the scope before privatization was 45% of the new scope

APPENDIX 1 (Continued)

Comparison of Scope of Services Before and After Privatization

No	Scope of Services	Before Privatization	After Privatization
	FACILITY ENGINEERING MAINTENANCE		
1.	Comprehensive maintenance of all facilities, plant and equipment including infrastructure, utilities and services	partial	yes
2.	Planned preventive maintenance	partial	Yes
3.	Breakdown maintenance	partial	Yes
4.	Specified response time	no	Yes
5.	Specified uptime targets	no	Yes
6.	Compliance to legislative requirements	partial	Yes
7.	Quality Assurance Program for all equipment and systems	no	Yes
8.	Operation and maintenance of all equipment and systems	Poor quality	Yes
9.	Commissioning of new plant and facility	yes	Yes
10.	Fault reporting system	yes	Yes
11.	User training	no	Yes
12.	Fire Drills	partial	Yes
13.	Computerise existing plans and drawings	no	Yes
14.	Set up and maintain library	no	Yes
15.	Procure documents and drawings	no	Yes
16.	On call and emergency services	yes	Yes
17.	Carry out minor works	yes	Yes
18.	Take over of existing engineering workshops and facilities of facilities	N/A	Yes
19.	Rental leasing existing tools and equipment	N/A	Yes
20.	Purchase of	N/A	Yes
21.	Placement of parts	Yes	yes
22.	Full pest control	partial	Yes
	Note: Full facility engineering services were only available in 14 General Hospitals and 17 District Hospitals. The scope under privatization covers full services at all 127 locations. It is estimated that the scope of services before privatization was only 45% of the new scope		

APPENDIX 1 (Continued)

Comparison of Scope of Services Before and After Privatization

No	Scope of Services	Before Privatization	After Privatization
	LINEN AND LAUNDRY SERVICES		
1.	Supply of dedicated trolleys	No	Yes
2.	Supply of white bags	No	Yes
3.	Supply of red bags	No	Yes
4.	Supply of green bags	No	Yes
5.	Purchasing of existing linen	N/A	Yes
6.	Supply of linen containers	No	Yes
7.	Supply adequate stock of quality linen	Poor stock level	Yes
8.	Washing, thermal disinfection and finishing	Poor quality	Yes
9.	Fabric Care Research Association Testing	No	Yes
10	Fabric Care Research Association quality wash	No	Yes
11.	Repair of torn linen	Yes	Yes
12.	Replacement of damaged linen	Yes	Yes
13.	Collection and transportation of soiled linen	Yes	Yes
14.	Purchasing of existing facilities	N/A	Yes
15.	Payment of utilities	N/A	Yes
16.	Rental and leasing of facilities	N/A	Yes
17.	Construction of new facilities	No	Yes
18.	Upgrading of existing facilities	No	Yes

Note

The standard of linen and the washing and finishing have been set to international standards.
The stock level in the user areas have also been specified.

It is estimated that the scope of services before privatization was 35% of the new scope

Comparison of Scope of Services Before and After Privatization

No	Scope of Services	Before Privatization	After Privatization
	BIOMEDICAL ENGINEERING SERVICES		
1.	Comprehensive maintenance	Only for a few equipment	Yes
2.	Planned preventive maintenance	Only for limited equipment	Yes
3.	Corrective maintenance	Yes	Yes
4.	Breakdown maintenance	Yes	Yes
5.	Parts replacement including vacuum components	Yes	Yes
6.	Accessories replacement	Yes	Yes
7.	Acceptance testing and safety tests	No	Yes
8.	Commissioning of new equipment	Yes	Yes
9.	Quality assurance program for all equipment	No	Yes
10.	Compliance to legislative requirement	No	Yes
11.	Fault reporting system	No	Yes
12.	Demonstration and user training	No	Yes
13.	Contingency due to failure or breakdown	No	Yes
14.	Disposal removal of unwanted equipment	No	Yes
15.	Set up and maintain library	No	Yes
16.	Proper handling of hazardous matter and contaminated equipment	No	Yes
17.	Investigation of related incidents	No	Yes
18.	On call and emergency services	Yes	Yes
19.	Purchase of existing tools and test equipment	N/A	yes
20.	Purchasing of existing spares	N/A	Yes
21.	Payment of utilities	N/A	Yes
22.	Computerisation of all assets	No	yes

Note:

Full biomedical engineering services before privatization was only provided in 14 general hospitals and 17 district hospitals.

It is estimated that the scope of service before privatization was only 40% of the new scope.

Comparison of Scope of Services Before and After Privatization

No	Scope of Services	Before Privatization	After Privatization
	GENERAL		
1.	Computerised management information system	No	Yes
2.	Compliance to Occupational Health and Safety Act	No	Yes
3.	ISO 9000 certification within five years	No	Yes
4.	Compliance to all legislative requirements	Partial	Yes
5.	Implementation of quality assurance program	No	Yes
6.	Deduction n fees due to poor performance	N/A	Yes

Note.

All the above requirements are aimed at ensuring a self auditing approach in this project. Such requirements have not been imposed in any other privatization project.

Appendix D

TRPI Scope No.	Question	Previous Point Score %	Present Point Score %
	CLEANING AND CLEANSING SERVICES		
2.1	To provide cleansing services to specific areas such as wards, clinic, lobbies, railings, corridors, staircases, and toilets, as well as specialized areas such as OT, laboratories, pharmacies and allied areas.		
2.2	To provide cleansing services to common areas which are rented out to private vendors such as shops, banks, post offices and etc.		
2.3	To provide cleansing services to hospital kitchen and canteen.		
2.4	To provide cleansing services to hospital's training school, and common areas of hostels, staff flats and houseman's quarters.		
2.5	To use method and procedure of cleaning and the choice of tools and equipment, to comply with MAP and TRPI.		
2.6	To supply adequate quantity of approved consumable items such as paper towels, toilet rolls, liquid soaps and deodorizers, as well as their dispensers.		
2.7	To collect general wastes from user areas to the central storage. Concession company to provide approved collection devices for the collection work to be carried out.		
2.8	To collect general wastes in such a manner, which will not interfere with the normal functioning of the areas.		
2.9	To supply adequate quantity of black bags complying with MAP and TRPI.		
2.10 (3.0)	To supply adequate numbers of general waste bins, complete with lining.		
2.11 (3.1)	To design, construct and maintain central general wastes store (s), including the supply adequate number of storage bins.		
2.12 (3.2)	To carry out regular Joint inspection with MOH staff on agreed schedule in addition to monthly house keeping and performance evaluation meetings.		

Prepared by SIHAT Personnel:	*Endorsed by Hospital Authority:*
Signature	Signature
Name	Name
Designation	Designation
Date	Date

TRPI Scope No.	Question	Previous Point Score %	Present Point Score %
	FACILITY ENGINEERING MAINTENANCE SERVICES		
4.1a	To plan and implement routine inspections.		
4.1b	To schedule and implement Plan Preventive Maintenance (PPM).		
4.1c	To carry out routine corrective maintenance.		
4.1d	To carry out breakdown maintenance.		
4.1e	To carry out emergency repair.		
4.1f	To carry out other facility maintenance related activities as specified in TRPI.		
4.1g	To provide all personnel, tools, instrument, spare parts, materials, transportation, workshops, facilities and anything else necessary to carry out maintenance.		
4.1h	To arrange and verify warranty maintenance carried out by others.		
4.2a	To maintain daily operation of all engineering plant and installations.		
4.2b	To provide all necessary personnel including electrical chargemen, boilermen and visiting engineers which comply to relevant Malaysian statutory requirements.		
4.2c	To provide everything necessary to carry out the operational services except for the supply of electricity, fuel, medical gases and other public utilities charges.		
4.2d	To provide technical advice on operation of engineering equipment, plant and installation, including energy management.		
4.3	To provide technical advice on reimbursable works and carry out approved reimbursable works.		
4.4	To test and commission equipment, reimbursable works and development project by others.		
4.5	To provide, implement and maintain a computerized Management Information System (MIS).		
4.6	To establish and implement a fault reporting system, requisition and feedback system.		
4.7/ 4.8	To institute and maintain a documented Quality Assurance Program (QAP) and submit reports.		

Prepared by SIHAT Personnel:	*Endorsed by Hospital Authority:*
Signature	Signature
Name	Name
Designation	Designation
Date	Date

Appendix E

Questions

The objective of the research is to identify the reasons for an increased in the operational costs of the healthcare support services in lieu with privatization. Hence, in order to justify any increment in the operational costs, the planning and implementation of the support services will be investigate and differentiate.

The Planning

1. How was the planning of work of the healthcare support services made earlier before the privatization?
2. Is there any special kind of plan of work created and carried out by the public worker before the privatization policy?
3. If it does, how was the plan of work benchmarked?
4. Did the ministry refer to any other health organizations?
5. Is there any kind of output specifications prepared before the implementation of the privatization?
6. Who prepared the output specifications after the privatization and how is it benchmarked?

The Implementation

1. Is there any difference in the means of monitoring of the performance made to the healthcare support services before the implementation of privatization?
2. How was the monitoring of the performance carried out before?
3. How was the monitoring of the performance carried out now?
4. Is there any difference in the monitoring of performance in the difference types of healthcare support services?
5. Which one of the support services requires more attentions and monitoring of performance?

6. There are two types of performance monitoring, mainly the building parts which monitors the materials, elements, components and systems and the buildings attributes which monitors the structural safety and service ability, health and hygiene, acoustics and durability. Is there any of its kind monitored?
7. Can you explain the details of the performance monitoring?
8. Facilities management requires difference in quantitative and qualititative measures of performance in order to compare buildings on several levels; eg. Actual vs. past performance, actual vs. expected performance and one facility vs similar. How is the measure of performance carried out in MOH?
9. How does the hospital monitor the complaints on the cleansing and facilities management services?