

THE CURRENT PRACTICES AND IMPROVEMENT STRATEGIES FOR
OUTSOURCED FACILITIES MANAGEMENT SERVICES IN
MALAYSIAN PUBLIC HOSPITALS

SITI FARAHIDA BINTI BAHARUDIN

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DEDICATION

My mother, my late ayah, my husband, my son, family and friends, who have always been there for me and given me strength when I felt like giving up, inspired me to do this study and continue to provide me with spiritual, moral, and emotional support.

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ABSTRACT

In general, Malaysians today are healthier, live longer, and are more motivated to be productive. The degree of public health achieved is one of the most important indicators of the success of our nation. Malaysians can lead productive and meaningful lives due to their excellent health. A high level of health also contributes to economic wealth and social stability. As the agency responsible for administering health services, the Ministry of Health Malaysia (MOH) delivers comprehensive, responsive, and integrated health services to guarantee that all Malaysians have access to quality healthcare. As the situation grows more challenging, MOH must continue to develop, restructure techniques, and move forward in in order to improve the health of the people. This is vital to guarantee that the country's goal will be achieved. To ensure uninterrupted delivery of health care, MOH has taken the initiative to outsource hospital support services (HSS) so that the organization can concentrate on its core competencies. The implementation of this HSS has been outsourced to five concessionaires, and the Engineering Services Division of the Department of Health oversees its implementation. The concessionaire provides a total of six services, namely facilities engineering, biomedical engineering, healthcare waste management, cleansing, linen and laundry services, and facilities management services (FMS) the primary services. Since these FMS are implemented by the concessionaire, extensive monitoring is required to guarantee that the services offered are in accordance with the terms of the concession agreement. This study aims to determine the present FMS outsourcing practice and its compatibility with the goals and philosophies of facilities management. This study was done to evaluate current practices and determine what continuous quality improvement strategies have been and will be implemented for the implementation of outsourced FMS in Malaysian public hospitals. This study employs a qualitative method in which the researcher collected data from six respondents via an online interview. The content analysis was used to analyze the respondent's data and information. The findings indicate that the implementation of outsourced FMS in Malaysian public hospitals fulfilled FMS criteria and was in great condition.

ABSTRAK

Secara amnya, rakyat Malaysia hari ini lebih sihat, hidup lebih lama, dan bermotivasi untuk menjadi produktif. Tahap kesihatan awam yang dicapai adalah salah satu petunjuk terpenting bagi kejayaan negara. Rakyat dapat menjalani kehidupan yang produktif dan bermakna kerana kesihatan yang baik. Tahap kesihatan yang tinggi menyumbang kepada kekayaan ekonomi dan kestabilan sosial. Sebagai agensi yang bertanggungjawab untuk menguruskan perkhidmatan kesihatan, Kementerian Kesihatan Malaysia (KKM) memberikan perkhidmatan kesihatan yang komprehensif, responsif, dan bersepadu bagi menjamin rakyat mendapat akses kepada penjagaan kesihatan yang berkualiti. Apabila keadaan semakin mencabar, KKM harus terus mengembangkan, menyusun semula teknik, dan terus maju untuk meningkatkan kesihatan rakyat Malaysia. Ini penting bagi memastikan matlamat negara tercapai. Untuk memastikan penyampaian rawatan kesihatan tanpa gangguan, KKM mengambil inisiatif menswastakan perkhidmatan sokongan hospital (PSH) agar dapat menumpukan perhatian pada kompetensi utamanya. Pelaksanaan PSH danugerahkan kepada lima syarikat konsesi, dan Bahagian Perkhidmatan Kejuruteraan, KKM bertanggungjawab mengawasi pelaksanaannya. Syarikat konsesi menyediakan enam perkhidmatan, iaitu kejuruteraan fasiliti, kejuruteraan bioperubatan, pengurusan sisa penjagaan kesihatan, pembersihan, perkhidmatan linen dan dobi, dan perkhidmatan pengurusan fasiliti (FMS) sebagai perkhidmatan utama. Oleh kerana FMS dilaksanakan oleh syarikat konsesi, pemantauan komprehensif diperlukan untuk menjamin perkhidmatan yang ditawarkan selaras dengan persetujuan dalam perjanjian konsesi. Kajian ini bertujuan menentukan pelaksanaan semasa penyumberan luar FMS dan pematuhannya terhadap teori pengurusan fasiliti. Objektif kajian ini dilakukan untuk menilai amalan semasa dan menentukan strategi peningkatan kualiti berterusan yang telah dan akan dilaksanakan untuk pelaksanaan FMS di hospital awam di Malaysia. Kajian ini menggunakan kaedah kualitatif di mana penyelidik mengumpulkan data dari enam responden melalui temu ramah dalam talian. Analisis kandungan digunakan untuk menganalisis data dan maklumat responden. Hasil kajian menunjukkan bahawa pelaksanaan FMS luar di hospital awam Malaysia memenuhi kriteria FMS dan berada dalam keadaan baik.

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LIST OF ABBREVIATIONS

ASIS	-	Assets and Information Management System
BEMS	-	Biomedical Engineering Management Services
CA	-	Concession Agreement
CFS	-	Customer Feedback Survey
CLS	-	Cleansing Services
CPA	-	Company Performance Assessment
CWMS	-	Clinical Waste Management Services
ESD	-	Engineering Services Division
FEMS	-	Facilities Engineering Management Services
FM	-	Facilities Management
FMS	-	Facilities Management Services
GLC	-	Government Link Company
HSS	-	Hospital Support Services
HWMS	-	Healthcare Waste Management Services
JKN	-	State Department of Health
LLS	-	Linen and Laundry Services
LO	-	Liaison Officer
MAP	-	Master Agreed Procedures
MOH	-	Ministry of Health
MSQH	-	Malaysians Society for Quality in Health
NAFAM	-	National Asset and Facilities Management
NCR	-	Non-conformance Reports
PMC	-	Project Monitoring Committee
POG	-	Project Operations Guidelines
PPM	-	Planned Preventive Maintenance
PSH	-	Perkhidmatan Sokongan Hospital
PTA	-	Professional Technical Advice
PWD	-	Public Work Department
TRKPI	-	Technical Requirements and Key Performance Indicators
VCM	-	Validation Committee Meeting

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The ultimate objective of each country's healthcare system is to enhance the health of its citizens so that they can live a healthy lifestyle and participate in economic and social activities (Masoumpour, Kharazmi, Rahimi, & Kavosi, 2013). Health organizations have adopted new managerial approaches due to the complexity of the health sectors, the competitive economy of healthcare services, and the necessity to deliver high-quality services. In the meanwhile, one of the most successful techniques that can be considered as a plan for improvement is organizational restructuring, specifically the reduction and decrease of government ownership. Outsourcing of services is one of the most prevalent actions in this field. In recent years, managers have regarded outsourcing as a strategy for organizational development and efficiency improvement (Kavosi, Rahimi, Khanian, Farhadi, & Kharazmi, 2018).

As an agency that offers and administers health services, the Ministry of Health Malaysia (MOH) delivers intense, integrated, and responsive health services to guarantee that all citizens have access to quality, equitable healthcare. To ensure that the country's aim is realized, the MOH must continue to improve, reorganize methods, and move forward to improve the health of the people, especially as the situation becomes more difficult. As a result, the MOH Strategic Plan 2021-2025 focuses on all citizens of the ministry in pursuit of their shared vision and goal for the benefit of the people (Ministry of Health, 2021).

In 1996, the Malaysian government took the unusual step of privatizing five essential hospital support services on a national scale, which was unprecedented and had no comparison anywhere else in the world. The primary intents and ambitions of the Malaysian government were to enhance healthcare for the population. In order to facilitate the privatization, the government of Malaysia and three private companies signed a concession agreement on 28 October 1996 (Fan, 2016). This privatization is a result of ineffective equipment and facility maintenance, inconsistency in hospital support services, inadequate budget allocation, old and obsolete plants and equipment, a high risk of infection from linen and cleaning, clinical staff involvement, and improper disposal of clinical waste.

As of this date, five companies have 10 years to run their concessions from 1 April 2015 to 31 March 2025 have been appointed and responsible for managing five service scopes as specified in the contract (Ministry of Health, 2018a). The Engineering Service Division (ESD) is the entity in charge of monitoring and supervising privatized hospital support services (HSS). The implementation and evaluation of monitoring and continuous improvement by this sector will be discussed in more detail in subsequent chapters.

1.2 Research Background

Facilities Management (FM) is an "organizational function that combines people, place, and process within the built environment with the goal of improving people's quality of life and core business productivity" (International Organization for Standardization, 2017). FM is in charge of managing infrastructure and services to maximize efficiency, maintain quality, and offer value to the firm. The increasing complexity of buildings and the cost significance of their operation have elevated the profile of FM alongside other support services such as human resource management and information technology (Tucker & Masuri, 2018).

Over time, the goal of FM in an organization has changed from traditional maintenance to one that is more tactical and strategic. Energy economics, the willingness for buildings to be more efficient, and the need to reduce the cost of running buildings have recently made FM more visible in many companies (Amos, Musa, & Au-Yong, 2019). FM tasks usually cover all three levels: strategic, tactical, and operational. Strategic FM requires a lot of planning for future projects related to facilities, and the facilities manager needs to be well-informed and knowledgeable with the organization's goals. Tactical FM keeps an eye on operational tasks by making sure that strategies for improvement are in line with the organization's goals and objectives. At the operational level, front-line employees provide a variety of services. (Chotipanich & Nutt, 2008).

According to the National Health Service Estate, NHS (1998), FM is responsible, within the framework of healthcare, for creating a hospital environment that sustains and serves the hospital's basic clinical needs at the best possible cost, as well as providing a healing ambience and various soft services that support a hospital's primary clinical operation, and this is supported by Rodríguez-Labajos, Thomson, and O'Brien (2018) state that FM is a critical component for the proper delivery of healthcare services. Within hospital management, FM has remained true to its definition, fostering an enabling environment conducive to the core mission of providing clinical and medical diagnostic services; this is why Shohet and Lavy (2004a) identified healthcare FM as a critical component of successful healthcare delivery. As things stand, one may argue that medical and health services in modern-day hospitals cannot be successfully supplied without the help of FM services (FMS), which play a critical role in controlling health-related infectious diseases. According to Liyanage & Egbu (2005), this is accomplished by maintaining a safe environment for patient care and a safe working environment for personnel in hospitals and other healthcare settings.

In general, Malaysians are healthier and live longer than they used to, and they are more motivated to work. The level of public health is one of the most important ways to measure how well our country is doing. Malaysians can live healthy and useful lives because they are in good health. A high level of health also helps the economy and keeps people from falling apart (Ministry of Health, 2020). In an effort to improve the quality of healthcare in many developing countries, governments and hospital administrators in some countries have made big changes to their policies and started new programs. Main policy initiatives have focused on strategic initiatives to improve access to quality health services, with a focus on eliminating and trying to prevent diseases like malaria, reduce morbidity and mortality, maternal and perinatal conditions, and strengthening resistance in the fight against diseases that affect children and major contagious diseases. (World Health Organization, 2020).

The use of outsourcing by the public sector has expanded considerably in recent years, for a variety of reasons. Public health care organizations in many countries have come to see outsourcing as a key part of being able to provide high-quality care in a time when budgets are tight. (Beaulieu, Roy, & Landry, 2018). The government proposed the idea of outsourcing public healthcare in 1996, when it announced in the Seventh Malaysia Plan to boost service efficiency while retaining its own skilled and experienced workforce. Facility Engineering Management Services (FEMS), Biomedical Engineering Management Services (BEMS), Clinical Waste Management Services (CWMS), Cleansing Services (CLS), and Linen and Laundry Services (LLS) are the five (5) services that make up the privatized HSS. The new contract begins on 1 April 2015, with enhancements to its primary services: FEMS, CLS, and LLS. Furthermore, CWMS has been increasing its scope of services to become Healthcare Waste Management Services (HWMS) to cater to all healthcare waste in healthcare institutions and Facility Management Services (FMS) have been developed as an assurance of good governance to ensure the coordination and efficacy of all connected services (Ministry of Health, 2018a).

Hospital buildings and services create an environment that makes it easier for patients to get medical care and talk to each other. (Zhang, Tzortzopoulos, & Kagioglou, 2019). According to Irizarry, Gheisari, Williams, and Roper (2014),

managing healthcare facilities is hard and complicated because they have to work perfectly all the time. If they don't, it can hurt patients in serious ways. So, performance measurement is needed to compare how well health facilities are doing and figure out what the system's strengths and weaknesses are (Shohet & Lavy, 2004b). In Malaysia, the ESD, MOH is in charge of monitoring and supervising privatized HSS, including FMS contracts with five concessionaires, with a total contract value of RM143 million by 2020, involving 148 contract hospitals and institutions. This unit is responsible for ensuring that the concessionaire delivers the highest quality services as stipulated by the contract. In addition, the unit should identify any necessary improvements to guarantee that service delivery is unaffected and at its best.

1.3 Problem Statement

The performance of FM is very important to the delivery of health services. Tracking FM performance is a key part of making sure that the best service is provided, and it is most helpful for the hospital's FM strategic planning (Myeda, Kamaruzzaman, & Pitt, 2011). Because there isn't a complete framework for measuring performance, it's hard for facility managers to measure the success of facility management. To avoid operational pauses and possible deaths, a facility needs to be assessed on in real time, according to Amos (2021) and hence provides a framework that focuses on four crucial performance measurement duties as presented in Figure 1.1.

The most important conceptual parts are making performance goals, measuring how well the FM process is done, figuring out how much FM helps, and reviewing and reporting performance. The goal of the proposed framework is to link FM procedures and outcomes to hospital goals and FM objectives. The last part of the framework sets up the need for a full review and report through a feedback loop to ensure continuous improvement and bring attention to strategies for improving FM performance.

The goal of these tasks is to find possible interventions and change drivers that could be looked into to improve the performance, T. J. van der Voordt and Jensen

(2018) recommend six possible actions to increase performance. These include, but are not limited to, changing the physical environment, changing the facilities services, changing the interface with the core business, changing the supply chain, changing the internal processes, and getting strategic advice and planning. In addition to these steps to improve FM achievement, lean practices should be promoted to increase FM's ability to adapt to changes, ensure continuous improvement, and strengthen FM's strategic role in hospitals (Wyton & Payne, 2014).

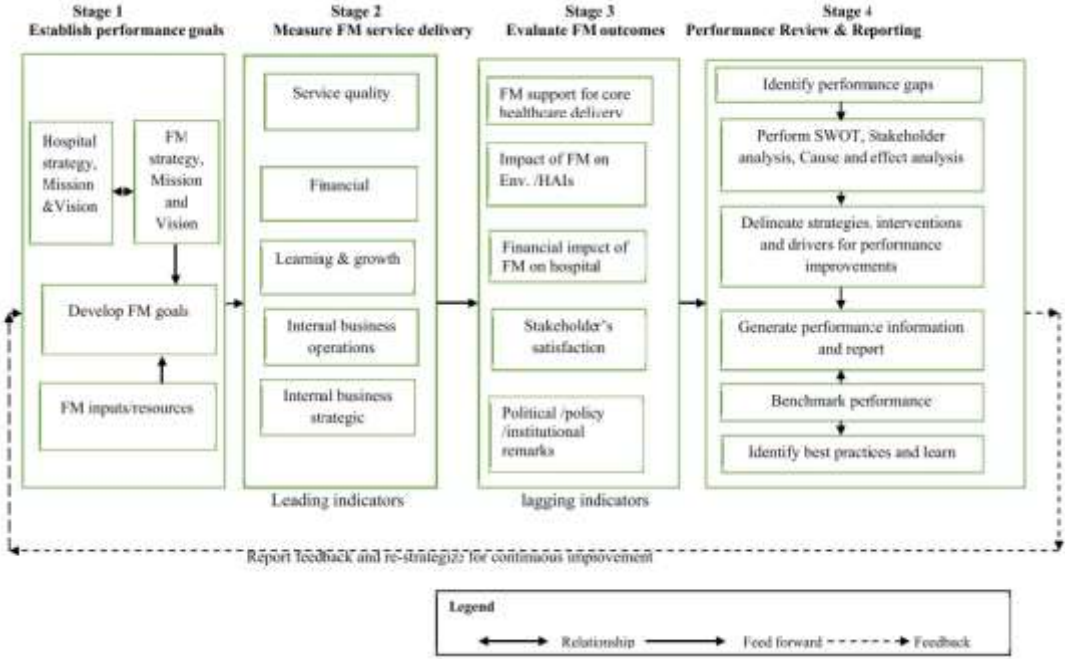


Figure 1.1 A framework for performance measurement of FMS (Amos, 2021)

The HSS Project Monitoring Committee (PMC) meetings chaired by the Director-General of Health Malaysia serve as a forum for strategic discussion of company policies, issues, and performance in order to continuously improve HSS provision. Performance evaluation at this meeting demonstrates how critical it is for the service provider to provide the optimum FM possible for all stakeholders. The performance of the Concession Company in delivering the services will be assessed and reported 3 times in a year by the State Operation Engineer from ESD in the Company Performance Assessment (CPA) report.

Below are the CPA scores for each of the five concessionaires from 2017 to 2020, as depicted in Figure 1.2. Based on this data, performance 3 companies (Medivest, Radicare, and Sedafiat) are improving, whereas Edgenta company are dropping from year 2018 to 2020 and One Medicare company are falling between 2017 and 2019, but growing in 2020 (Ministry of Health, 2019, 2020). Four out of five companies demonstrated better performance, while one company demonstrates declining performance over the past three years. It is important to find out what causes these performance trends and also what ESD and concessionaires have done to make sure services are always at their best. Both sides need to look into this so that the support services, which are the backbone of the hospital's main services, function properly as efficiently as possible.

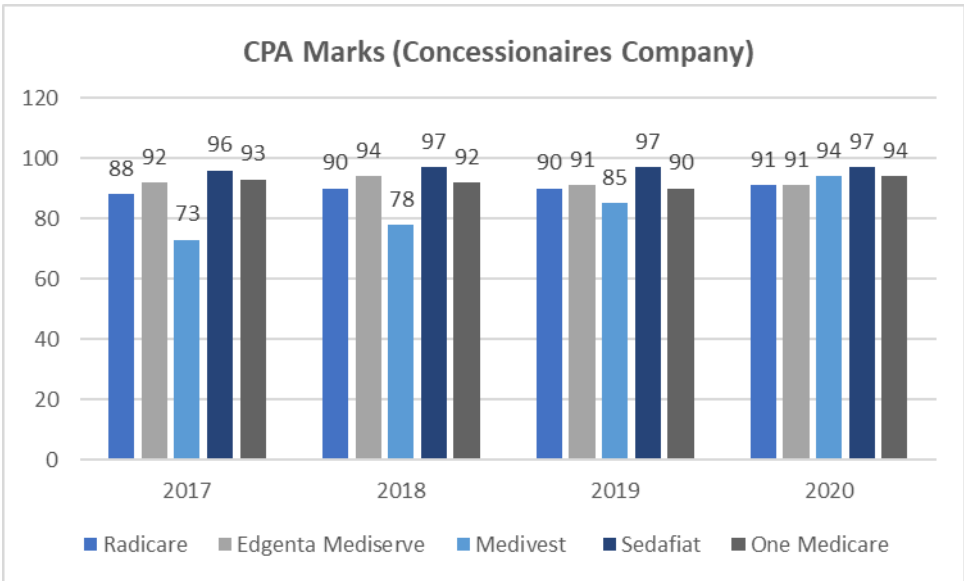


Figure 1.2 CPA Marks for Five Concessionaires from 2017 to 2020. Source: Engineer Service Division, MOH (Ministry of Health, 2019,2020)

Implementation of the CPA involves hospital, state, and national levels. The hospital level is responsible to CPA implementations, validates monthly data, compiles and analyses data, and notifies the hospital director prior to submitting the performance report to the State Department of Health (JKN). At the state level, CPA will be analyzed based on hospital service categories and reported at the Perkhidmatan Sokongan Hospital (PSH) State Meeting. Monitoring the implementation of the CPA at the national level will involve the compilation and analysis of data according to services, hospital categories, states, and companies three times per year, with the results being reported at PMC meetings. However, current practice demonstrated that the performance of FMS is solely based on the evaluation conducted by ESD. Currently, the performance of FMS as stipulated in the contract is being reviewed, although it is somewhat difficult to identify performance gaps and improvise interventions or strategies for continuous improvement.

If the organization does not address the performance gap and identify what improvement efforts being implemented to optimize performance, it will be challenging to align FM goals with organization goals and link them to FM processes and outcomes. This is why, according to Purbey, Mukherjee, and Bhar (2007), performance measurement gives hospital management hard evidence of current practices, values, beliefs, and assumptions. This would let the administration come up with a system for finding problems and making advancements. With the large investment made by the government to ensure that health service delivery is always at the highest possible level, organizations must ensure that every improvement strategy is discovered, systematically applied, and fully executed. Most public hospitals lack a policy framework for outsourcing, which increases the likelihood of function and FM duplication. For the successful deployment of outsourcing, the outsourcer and service provider must collaborate extensively to give direction, compensate for bureaucratic rigidity, and assess operating performance (Skipworth, Delbufalo, & Mena, 2020).

Based on the above-mentioned scenario, it is necessary for us to investigate how outsourcing FMS is being implemented in the context of Malaysia's healthcare and to identify the organization's improvement strategies. Previous studies Wang, Tan, and Wahid (2020) have examined the FM practices and capacities of outsourcing service providers, but none have investigated how the organization itself implements outsourcing and what improvement measures, if any, are involved. Apart from that, Amos, Musa, and Au-Yong (2020) observed that there are no coherent policies and strategies for hospital buildings and FM services because most major health policy interventions have focused on core health delivery performance instead of FM performance, which provides the environment that makes it possible for hospitals to do their main job of providing clinical services. Because of this, many developing countries' health care facilities and buildings aren't built well, so they can't provide good service.

Following the gap indicated above, a study that investigates present practices and identifies improvement plans is required, as it is critical for the organization to understand the system's strengths and weaknesses for effective performance. FM is responsible for managing non-core services in order to support an organization's strategic goals. To accomplish this according to T. Van der Voordt, Anker Jensen, Gerard Hoendervanger, and Bergsma (2016), hospital FM departments must continue to focus on the performance of FM operations. This is useful for evaluating FM inputs and processes, as well as their contributions to the hospital's strategic objectives. The anticipated findings from this study can be used as basic references guidelines to evaluate what is actually occurring on the ground in terms of implementation of the outsourced FMS and what are the necessary improvement measures that should be considered to ensure that this outsourcing is successfully implemented at all levels and that this implementation reflects the excellent delivery of healthcare services in Malaysia.

1.4 Research Questions

Based on the concerns outlined above, the following questions must be addressed, as well as suggestions for possible solutions:

- i. What are the current practices for outsourced FMS in Malaysian public hospitals?
- ii. What are the improvement strategies for outsourced FMS in Malaysian public hospitals?

1.5 Research Objectives

- i. To investigate the current practices for outsourced FMS in Malaysian public hospitals; and
- ii. To identify the improvement strategies for outsourced FMS in Malaysian public hospitals.

1.6 Scope of Research

The purpose of this study is to investigate the implementation and improvement practices for outsourced FMS in Malaysia's public hospitals. The study's scope was chosen with public hospitals in mind since hospitals and health-care institutions are among the most complicated, expensive, and difficult structures to maintain, and as a result, the FM function is reasonably well developed. One of the most difficult aspects of managing hospital facilities is the very diverse network and range of tasks required to keep operations running, as well as the complexity of services required to support them (Loosemore & Hsin, 2001).

This study's target respondents were officers of the ESD, comprised of hospital employees from each zone, and officer of the ESD at the Ministry level. ESD is the sector responsible for monitoring and managing the privatized HSS of five concession companies, based on hospitals and zones as described in Table 1.1. Radicare (M) Sdn Bhd controlled the most hospitals or institutions, 46 in total, covering the Klang Valley and East Coast, whereas Medivest Sdn Bhd, which managed the Southern zone, and One Medicare Sdn Bhd, which managed Sarawak, shared the same number of hospitals, 22 in total (Ministry of Health, 2020). The unit is comprised of engineers with a range of specializations, including civil, electrical, and mechanical engineering, as well as officers from the highest level of management, management and professional groups, and support groups. Each public hospital in the country has an ESD of which will report concessionaire performance to the JKN for coordination and submission to the Ministry's ESD.

Table 1.1 Concession Companies by Hospitals and Zones (Source: Engineering Services Division, MOH (Ministry of Health, 2020))

Company	Number of Hospital/ Institution	Zone/ State
Radicare (M) Sdn Bhd	46	Klang Valley and East Coast (Selangor, Federal Territory of Kuala Lumpur and Putrajaya, Pahang, Kelantan and Terengganu)
Edgenta Mediserve Sdn Bhd	32	Northern (Perlis, Kedah, Pulau Pinang dan Perak)
Sedafiat Sdn Bhd	26	Sabah and Federal Territory of Labuan
Medivest Sdn Bhd	22	Southern (Melaka, Negeri Sembilan dan Johor)
One Medicare Sdn Bhd	22	Sarawak
Total	148	

1.7 Significant of Research

This research will contribute:

- i. Filling in the gap that exists in the implementation of outsourced FMS in public hospitals.

Even though there are several literatures and research on outsourcing FMS in public hospitals, there is a lack of information on the level of implementation and how to identify the improvement strategies that have been adopted in Malaysia's public hospitals.

- ii. Providing a guideline for those directly involved with the outsourcing process on the ground as well as those concerned with policy formulation.

The findings of this study can be used by hospital administration to determine relevant steps to be done to ensure that service delivery is exceptional, cost-effective, and meets the organization's goals and objectives. Most importantly, the findings will assist organizations in extending the life and improving the capability of the facilities to perform at their peak potentials, reducing operating interruptions and failures while the asset is in use, and maintaining the entire facility to optimum operating condition, ensuring that patient care requirements are not compromised. Aside from that, it can assist in improving the productivity and skill level of operation and maintenance employees, as well as improving work processes and procedures. On behalf of the Ministry, the findings of this study can be utilized as a basic reference to strengthen current policies or guidelines and to support the Ministry in ensuring that health services are consistently of the highest quality.

- iii. Becoming a starting point for studies and practices on the outsourced of FMS in Malaysian public hospitals.

Few studies have been undertaken on the adoption of outsourcing FMS but none on the improvement strategies adopted in Malaysian public hospitals. This study is regarded to be the beginning of a deeper and more thorough investigation that will help individuals involved in the direct or indirect delivery of the service.

1.8 Research Methodology

The first section of this study investigates the implementation of outsourcing FMS and identifies the improvement strategies in the case based on the literature review's indicators. This step will involve review of literature on FM and its current situation in Malaysia, the importance of FM in hospitals, outsourcing FMS, and factors contributing to the improvement strategies of outsourced FMS in public hospitals. Following that, the second stage of the study will create a structured question for interview purposes based on the literature that has been discovered. In the third stage, researchers will identify the respondent that involve ESD staff from Malaysian public hospitals to give their input regarding subjects related to the question given.

Due to the nature of this study, qualitative methods are chosen to answer research questions and accomplish the stated objectives. This is due to the fact that this method allows for the methodical study of social phenomena in natural settings. These phenomena include, but are not limited to, how individuals and/or groups behave, how organizations operate, and how interactions shape relationships. The researcher investigates why events occur, what occurs, and the significance of those occurrences for the persons under study (Teherani, Martimianakis, Stenfors-Hayes, Wadhwa, & Varpio, 2015).

To collect data and input from the respondent, structured interviews will be done to help identify the areas to be investigated, while also allowing the interviewer

or interviewee to diverge to pursue a concept or response in deeper level. This interview approach is most prevalent in the healthcare industry since it offers participants with suggestions on what to discuss, which many find useful (Gill, Stewart, Treasure, & Chadwick, 2008). Content analysis can be used to interpret collected data because it is applicable to all sorts of written texts, regardless of their source. Moreover, in content analysis, data are presented in terms of words and themes, allowing for interpretation of the results (Bengtsson, 2016). The next level is a phase in which study findings and future research proposals are discussed. In summary, this methodology is depicted in the Figure 1.3.

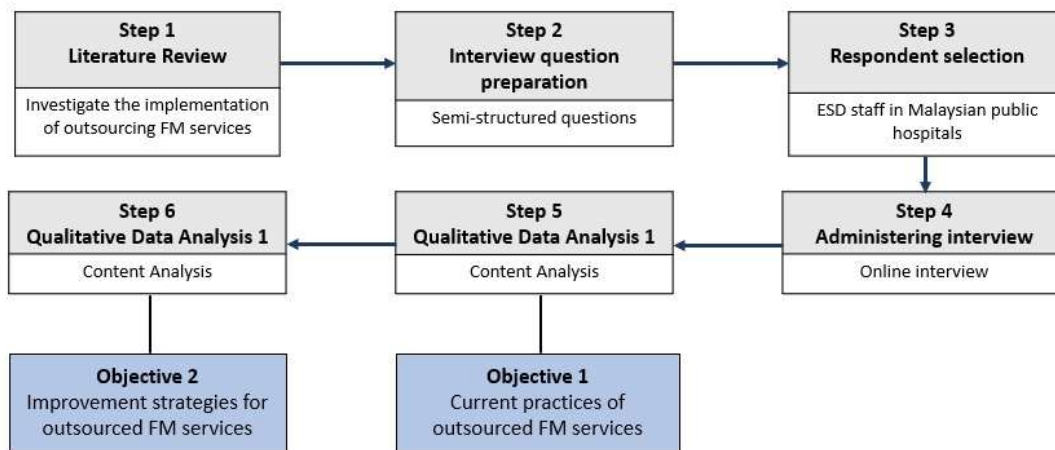


Figure 1.3 Research Methodology Framework.

1.9 Organizations of Chapters

The organization of chapters in this research thesis is as follows:

Chapter 1 (Introduction): Chapter 1 discusses the background information of the research comprising the problem statement, research questions, research objectives, the significance of the research, research scope and a brief explanation on the methodology of the research.

Chapter 2 (Facilities Management): Chapter 2 initially discusses the concept of FM and then discusses services of the FM that related to healthcare. This chapter also provides the concept and definition of outsourcing FMS, as well as the practices and elements that contribute to the improvement strategies of outsourced FMS in Malaysian public hospitals.

Chapter 3 (Research Methodology): The approach used in this study is discussed in Chapter 3. The chapter discusses the semi-structured interview questions that the design derived from the theoretical components and requirements, as well as the FM conceptual model defined in Chapter 2. This chapter then goes through how respondents were chosen, how data was collected, and what analysis methods were used.

Chapter 4 (Data Analysis): This chapter describes the analysis carried out in order to address the research objective.

Chapter 5 (Results and Discussion): This chapter analyses the findings and the extent to which they meet the objectives of the study.

Chapter 6 (Conclusion and Recommendations): The final chapter summarizes the conclusions and general research effort that has been completed. This chapter discusses the findings' contribution and implications for Malaysian healthcare, specifically HSS in MOH. The constraints and potential enhancements for future endeavors will also be explored. Suggestions for future research will be provided in the concluding section of this chapter.

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