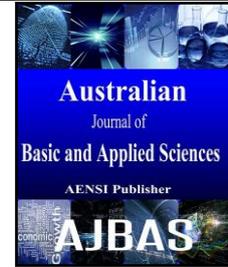




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Healthcare Facilities Management: A Case Study on Privatisation of Linen and Laundry Management Services in Malaysian Public Healthcare System

¹Aini Jaapar, ²Ramlan Dahlan and ³Nor Azmi Ahmad Bari

^{1,2,3}Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Shah Alam, Malaysia

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ABSTRACT

This paper reviews the Facilities Management (FM) implementation towards outsourcing practices of linen and laundry management services in the Malaysian public healthcare system which was implemented since 1997 with the aim to allow the medical practitioners to devote their full commitment on the core functions which are on the patient care and medical activities. The effectiveness of the services relied on the three main measured indicators i.e. adequacy, quality and timely collection and delivery of linen. This study concluded that the existing services implementation were developed collectively based on sub-standards and requirements from different countries as well as local authorities. Review and assessment of the adopted standards and requirements were not carried out comprehensively and periodically caused different interpretation at the operational level.

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INTRODUCTION

Linen & Laundry Management Services is one of the non-core support services under the Hospitals Privatisation Project. The demand has increased gradually for the past 17 years from 2,900 tons of clean linen in 1997 to 58,200 tons in 2013 and the fee paid by the government for the services at 122 hospitals in 1997 had increased from RM11.5 million to RM222.6 million for 140 hospitals in 2013 (Kejuruteraan, B.P., 2014). The services are devoted to washing, delivering and collection of linen according to the agreed frequencies, schedules and routes from the laundry facilities to the end user in order to achieve an adequate, clean and constant supply of linen for hospital usage.

The conducted research is to fill a gap in service implementation towards good governance and systematic handing of linen and laundry services to meet the end user demands and satisfaction. Therefore, the objective of this research is to develop an Integrated FM framework for linen and laundry services in healthcare facilities.

Research Method:

A paper presents case studies analysis of the linen and laundry management services in 24 public hospitals and 6 healthcare laundry service providers. The researchers investigate and evaluate the

effectiveness of the current model of service delivery and performance measurement, in which the integrated healthcare FM was implemented. Information were collected from the literatures, interviews as well as observation data resulted from the hospital site visits. Document studies of reports and records data from laundry service providers, hospitals as well as Ministry of Health were also carried out and analysed.

Findings:

The case studies showed significant result in predicting FM related aspects, such as the level of performance and required service standard. The findings reveal a high correlation between the laundry and linen services performance and the client satisfaction.

The core of the services is based on the strength of identified effects of certain parameters and variables, such as maintenance programs of the facilities, compliances to statutory and legal requirement, standard and procedures, and customer satisfaction of the services rendered. The study concluded that the current state of implementation was in line with the Ministry of Health requirements. The study was also concluded that the current specific standard procedure for Linen & Laundry Management was not comprehensively defined and

Corresponding Author: Aini Jaapar, Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Shah Alam, Malaysia
E-mail: ainijaapar@salam.uitm.edu.my

therefore caused different interpretation at the operation levels.

Privatisation of Hospital Support Services:

In this modern era, healthcare is perceived as an organisation administrates the field relating to leadership, management, and administration of hospitals, hospital networks and healthcare systems (Becker, F. and K.S. Parsons, 2007). However, the presence system of FM in healthcare industry today leads to a systematic, competitiveness and patient oriented types of governances that focus and devoted to the care and maintenance of the hospital engineering systems either soft or hard to ensure the facilities and its assets are in a good condition. Furthermore, healthcare support and core activities should be well- define and in tandem to the healthcare strategic contexts.

Privatisation of healthcare support services are the most successful outsourcing activities in the Malaysian healthcare system (Rasiah, R., *et al.*, 2011). The main agendas of privatisation are to differentiate and perform the non-core support activities such as maintenance of engineering assets and facilities and to essentially support the main focus of healthcare functions (Al-Turki, U., 2011).

Malaysia started its privatisation of healthcare support services since in 1997, to allow the medical practitioners to devote their full commitment on the

core functions which on the patient care and medical activities. Hence, the practice able to increase the efficiency of clinical services and retains its own qualified and experienced expertises. The outsourced five non-core hospital support services are namely Biomedical Engineering Maintenance Services (BEMS), Facility Engineering Maintenance Services (FEMS), Linen and Laundry Services (LLS), Cleansing Services (CLS) and Clinical Waste Management Services (CWMS) to the three concession companies in provision to the services at 140 Hospitals and 10 un-bedded institutions (research and laboratory centre) with a total floor area of 5.6 million M². The privatisation project allocates a sum of RM1.3 billion annually for 15 years contract period (Kejuruteraan, B.P., 2014).

Linen and Laundry Services in Hospital:

The main activities in linen service are devoted to the delivery of good clean linen and collection of soiled linen to and from ward or user location in accordance to the pre-determine schedules, frequencies and routes. Typical linen operation process flow in the public healthcare is depicted in Figure 1. Good quality linen refers to hygienically clean and meeting standard (size, type, material and colour) as set by the Ministry of Health (Kejuruteraan, B.P., 2014).

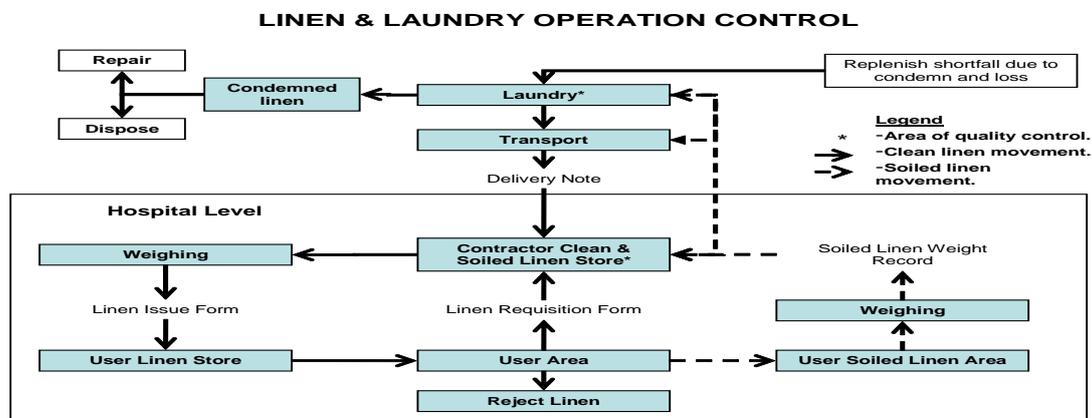


Fig. 1: Typical Linen & Laundry system in Malaysian Healthcare Facilities

New linen need to be purchased constantly to replace condemned linen, losses and increased in demand to ensure adequacy in the hospitals. Tools and equipment such as laundry bags, trolleys and holders for the purpose of collection and delivery activities need adequately available (HLAC, 2011). Linen service is also responsible for the maintenance and management of related stores to ensure they are clean, well ventilated, adequate stacking racks and has a proper inventory system.

Laundry service is an interdependencies process with linen service, responsible in providing an adequate, clean and constant supply of linen to hospital usage. The healthcare laundry consists of

delicate and controlled process to serve it purposed which include sorting, washing, extracting, drying, ironing, folding, mending and delivering, and ensuring hygienic precautions are maintained in the process (Kelly, P.M., 2011). The laundries were regulated by the Ministry of Health and adhered to several legislations and specific requirements including the related environmental aspects. Australia and New Zealand Standard on Laundry Processing (AS/ANZ 4146:2000), Textile Rental Services Association of America (TRSA) and Fabric Care Research Association (FCRA) are amongst the standards adopted by the Malaysian public healthcare laundry system (Kuman, Y., 2012).

Soiled linen from healthcare industry is classified as clinical soiled and must be treated in a hygienic manner to avoid cross infection during transportation, handling and washing process. Healthcare soiled linen is washed according to the types and degree of soiled, material and colour, and each types of category has its own pre-set washing programme. Hot water, chemicals such as builder, acid, alkali, disinfectant and softener (FCRA, 1988) are commonly used to facilitate in removal of soil and at the same assist in microbial kill (Fijan, S., *et al.*, 2005).

Environmental, Safety and Health Impacts and Control Measure:

Linens and laundry services in nature are risky activities. Hence, occupational health and safety play important role to curb and minimise incidents and accidents. There is an established health and safety programmes such as education programme to educate people on the danger of soiled linen, cross infection, lint, laundry wastes and proper handling of

related laundry tools and equipments. Medical check-up and immunisation programmes are mandatory to be given to the linen and laundry workers in addition to the Personal Protective Equipment (PPE) such as safety glasses, respirators, gloves and safety boots.

Procedures adhered in the healthcare laundry are related to process flow of the laundry activities to minimise incident and accident particularly on cross infections (Singh, D., *et al.*, 2009) and to protect the environment (Kelly, P.M., 2011). The availability of contingency plan in case of emergency is perceived as important towards a continual supply of linen to the hospitals.

The wastewater generated from laundry facility is hazardous in nature as it contains lint, grit, emulsified oil, grease, heavy metals and volatile organic compounds (VOC) and require further treatments prior to its release into the streams in compliance to the Schedule waste A or B requirements regulated by Environmental Quality Act 1974.



Fig. 2: Linen and Laundry Performance Model

Performance Model:

The Malaysian privatisation system was developed in line with comprehensive monitoring, Quality Assurance Program (QAP) and penalty systems and seen as the most effective mechanism in controlling and maintaining the service quality (Kuman, Y., 2012; Mustapa, F.D., 2006)

Performance evaluations are not only influence by the performance of the tool and equipment but most perceived by the effectiveness of organisation processes and the organisation behaviour. The elements of monitoring, controlling, evaluating, and analyse the process are important in the 'process control' and key factors to the organizational performance (Douglas, P., 2005) in increasing quality and productivity (Haynes, R.M. and P.K. Duvall, 1991). These processes are depicted in Figure 2.

Conclusion:

An overview of FM concepts and current practise of healthcare laundry processing in Malaysia was found partly in tandem with standard laundry practises[7] in other countries. In the system where the process is perceived to be homogenous, comprehensives procedures, guidelines and continues performance review are found in placed to covers every aspect of internal and external controls to support the strategic context of the services (Matanle, I.,1998).

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