

CHAPTER 1

INTRODUCTION

1.1 Introduction

Malaysia is one of country in Southeast Asia which has highest growth rate of development in construction industry. Many type constructions of infrastructure that have been done years by years to fulfil the needs of local population in Malaysia such as highways, bridges, schools and others. This phenomenon can increase standard of living for people live in Malaysia. Telecommunication tower is one of the important infrastructure that will give a better communication activities for community life in many developing countries

According to Government Transformation Programme (GTP) that has been introduced in 2010 by prime minister, many programme and effort has been launched by government to transform Malaysia into competitive, progressive and harmonious country. The Stars newspaper, 10 November 2016, government spend RM15 million to upgrade rural postal services which one of the plan is providing efficient and inclusive communication network in order improve the economy of people. This shown how important of telecommunication tower as a transmitter for people living in rural area to communicate and received the information.

Berita Harian newspaper, 9 April 2002, numbers of telecommunication tower that constructed in Malaysia are actually shows 20 000 unit in order shows the rapid growth of wireless communication technology development for Malaysia as a development country. Therefore, maintenance works of the structure for the telecommunication tower are intensified in many areas to ensure all component and equipment of telecommunication tower are in a good condition.

There are two types of communication system that commonly used in Malaysia that are wired communication system and wireless communication system, Wired communication system is one of the system that used a cable system like television and home phone while wireless communication system is a system that support by electromagnetic wave and use telecommunication tower as a transmitter. Example of device that use wireless communication tower are mobile phone, radio system and others.

Furthermore, in Malaysia there are many telecommunication companies that are responsible to manage the telecommunication towers in terms of the structure of towers, installation and maintenance. Example of telecommunication company are Telekom Malaysia Berhad, Celcom, Digi and Maxis. All of these companies need to keep up with the current needs in Malaysia.

1.2 Problem Statement

Maintenance is one of the related issues that must need do a process of reservation and restoration of the structure and component of the tower. Maintenance work is one of the reason to retain the value of assets of the towers and keep all the components of the towers are functioning well.

In the street, drainage and building act (1984) stated that buildings or structures reaches the age of five to twelve years need a thorough inspection to determine its durability, integrity besides its safety for occupants. So, telecommunication tower need a maintenance to ensure safe structures. This is important so that all companies involve can provided a structured programme that can minimize the life cycle cost of the tower with maintaining the part of the tower that may broke or lost.

According to accident happened at Kampung Chegar Batang Besut, 6 August 2009, telecommunication tower was collapse and falling on top of building of community service centre of Hulu Besut. This accident need to be worried because it can give harm people living on that area. This show how important to company involve doing a maintenance on the telecommunication tower after this tower has been constructed.

To support this research, one of article has been found out to emphasize that the maintenance of the telecommunication tower is important. New Straits Times, on 6 June 2013, Tan Sri Datuk Lee Lam Thye, chairman of National Institute of Occupational Safety and Health (NIOSH) said Malaysia is one of the country that which prides itself in the provision of First -World infrastructures but not in term of maintenance of these infrastructures. Every year, there are some of infrastructures that have defect on it and can lead into a major problem that can make injuries and cause death to people.

Furthermore, factor of geography can be one of the problem to do maintenance work for telecommunication tower because many telecommunication towers located at high place such as top of hill. This factor can be distracted the maintenance work of the towers because its need more money or financial to do the works besides the factor of safety can endanger the life for those workers to do a maintenance.

1.3 Objectives of Study

The objective of this study is to study the effectiveness of the telecommunication tower maintenance management practice in Kuantan. The objectives have been identified as follows:

- I. To study the way of implementation of the maintenance of telecommunication tower
- II. To identified and design the questionnaire framework related the maintenance management practice of the telecommunication tower.
- III. To analyse the efficiency of the telecommunication tower maintenance management practice.

1.4 Scope of Study

The scope of this research will focus on the telecommunication tower maintenance practices on the organization involve in Malaysia. The survey will conduct through questionnaire to who involve in maintenance for telecommunication towers. This research also focusses on how the strategic planning is important in their maintenance management practice, the factor that affect the telecommunication tower performance, and the factor that influenced in maintenance works.