UNIVERSITI TEKNOLOGI MARA

IMPLEMENTATION OF INFORMATION SECURITY MANAGEMENT SYSTEM (ISMS): A CASE OF MSC IT STUDENTS

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ABSTRACT

ISMS are guidelines to protect and manage the organisations. It is systematic approach to establish, implement, operate, monitor, review, maintain, and improve the information security in organisations. ISMS play an essential role to draw the roadmap of information security. ISMS consist of eleven basic areas, thirty nine objectives, and one hundred thirty three controls. ISO 27001 also adapted Plan Do Check Act (PDCA) cycle model as a guideline of information security processes. This research designed to study the ISMS framework, the implementations, the practices, and the knowledge of ISMS from various organisations. The survey questionnaire is performed toward working adults from Msc IT and the result is evaluated. There are problem statement while working with this research which are not all the organisation is ISMS certified, not all the respondent experience and acknowledge the ISMS practices, not all working adults really concern about ISMS practices, and some ISMS practices is only applicable for specific department. The results from survey are analyst using SPSS version 21 software. From the results identified, Kaiser Meyer Olkin (KMO) test was 0.899 of sampling adequacy. That shows the sufficient of sampling and fitness of data for factorial analysis. The results also identified that 78 percent of total variance shows that considered satisfactory in exploratory factor analysis.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

The business today is faces highly market competition, service improvement, and work efficiency. Thus most organizations today have moved away from a paper based workplace to the more contemporary and convenient computer based information technology (IT). Therefore to protect information assets is very essential to the core survival of organizations. The increase of technology attacks and viruses worldwide made essential for organizations to adopt innovative and rigorous procedures to keep these important assets out of the reach of exploiters. The rising of information technology especially in the increasing of data exchange between people, society, and organisation have made the information security are one of the important asset that needs to be protected. Proactive approach used to ensure the right people, processed, and technologies are in place. It is essential for organization to use security certification to efficiently manage their assets. ISMS is one of the certification recognized under International Organisation for Standard (ISO) to facilitate security management control for the organisation. Security management system is enclosed with the set of policies that equipped space for any organisation to maintain the security of their computer and network resources. Type of policies is depending to the resources that need to be secured in the organisation such as some may be applied entirely and other are toward to the specific department. In order to give organisation an early stage to develop their own security management systems, ISO and IEC developed standards known ISO 27001 (Susanto, Fahad, Nabil, & Tuan, 2010). This chapter given an overview of all topics discussed in the research.