UNIVERSITI TEKNOLOGI MARA

ANTECEDENTS TO THE ADOPTION OF CORPORATE COMPUTER FORENSICS INVESTIGATION IN MALAYSIA CRITICAL INFORMATION INFRASTRUCTURE AGENCIES

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ABSTRACT

Computer technology is the major integral part of everyday human life, and it is growing rapidly, as are computer crimes such as financial fraud, unauthorized intrusion, identity theft and intellectual theft. To counteract those computer-related crimes, Computer Forensics plays a very important role. The Computer Forensics involves in general involves obtaining and analysing digital information for use as evidence in civil, criminal or administrative cases. Digital evidence is a time fragile in nature. The faster evidence identification and collection the more information can possibly gathered to develop a better case to be presented in the court room. The general objective of this study is to measure the combination of innovation adoption models such as Tornatzky's TOE, Rogers' DOI, Benbasat's Perceived Characteristic of Innovation and Iacovou models with the IAAC's Action Plan of Corporate Computer Forensics Investigation among Malaysia's Critical Information Infrastructure agencies. The research result demonstrates the level of innovation adoption antecedents to the Corporate Computer Forensics Investigation among the National Critical Information Infrastructure (NCII) of Malaysia agencies. The questionnaires were distributed among IT staffs in the agencies' IT departments that covered total number of 201 respondents. The data then analysed with SPSS and validated, described, tested and produced the recommendation at the end of the study. A total of 6 hypotheses were found supported while two were found otherwise. The organizational antecedence was not found significant to the Early Measure and Investigation Process of the IAAC respectively. The findings have also unlocked the grounded assumptions on the relationship theory between the determinant factors of the innovation adoption with the three stages of Information advisory Assurance Council of UK; Anticipatory Measure, Process and Post-Incident stages.

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All praise is due to Allah, the Lord of the Worlds. He bestowed His favours abundantly on us. I bear witness that there is no deity save Allah, having no associates. All the praises and thanks are due to Him. I also bear witness that our Master Muhammad is the servant of Allah and His Messenger. He was the best of all who praised Allah. May the peace and blessings of Allah be upon him, his pure grateful family and companions, and all those who follow them in righteousness till the Day of Judgment.

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“It is Allah (alone) whose help can be sought”

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CHAPTER ONE
THE CONTEXT AND BACKGROUND OF THE STUDY

1.1 Introduction

In this chapter the researcher starts with the fundamental elements in a brief elaboration that structure the detail discussion on the subsequent chapters. This chapter spin-off highlighting the context of study, the researcher motivation, problem statements, Research Objectives, Research Questions and also Significance of the study.

1.2 Context of the Study

Computer forensic investigation has been expected to be a major IT responsive tool in organizations. Frost & Sullivan (2015) has reported due to factors such growing cyber crimes and the risk associate with it and also the ability to recover complex evidence from various devices offered by different professional service providers has increased the affordability of forensic applications along with their market penetration in various business fields such as in law enforcement, defence, banking, health care, information technology, education and logistic and many other, hence it appears to be potential substantial growth for computer forensic investigation skills.

Price Water Cooper (2016) reported that the incidence of reported cybercrime among our respondents is sharply higher this year, jumping from 4th to 2nd place among the most-reported types of economic crime. Over a quarter of respondents told us they'd been affected by cybercrime. With that wide range of companies that affected with the cyber crime the losses can be substantial. A handful of respondents (approximately 50 organizations) said they had suffered losses over $5 million; of these, nearly a third reported cybercrime-related losses in excess of $100 million. According to PwC' Global Economic Survey (2002) Australian Enterprises are among those hardest hit by fraud attacks. In Americas, billions of dollars are lost each year due to white-collar crime which stems from internal fraud