UNIVERSITI TEKNOLOGI MARA

SOCIAL AWARENESS & ETHICAL ISSUES OF ELECTRONIC PICKPOCKETING IN MALAYSIA: SECURITY & COUNTERMEASURES REQUIREMENTS

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IT Project submitted in partial fulfillment of the requirements for the degree of Master of Science in Information Technology

Faculty of Computer and Mathematical Sciences

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AUTHOR'S DECLARATION

I declare that the work in this report was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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ABSTRACT

Technology advancements are commonly beneficial to people in general, productivity and competency of many things. However, technologies can be vulnerable and the fact that today people are very dependent to technologies in assisting daily routines, there should be precautions and rules set to protect any individuals from being a victim of the vulnerabilities. Unethical act of exploiting technology advantages may cause harm to others to the extend of being considered as a serious crime. Electronic Pickpocketing is relatively new in Malaysia. This unethical act of stealing information using Radio Frequency Identification (RFID) technology is mainly for monetary benefits. Many RFID enabled products such as some of the credit cards are at risk. Being an electronic pickpocket victim can be very devastating since not only money can be stolen, other sensitive or personal information can also be compromised. Very minimal studies being done in this area especially here in Malaysia. Ten (10) random Malaysian citizens were interviewed and majority of them are not aware of this threat. In fact, most of them have not heard about it before. Experts were also interviewed each from banking, authorities and technology provider to get insights on how possible is this threat, what are the current law and regulations applied. Since the awareness level is very low, nothing was done as prevention to this threat here in Malaysia. The issue was not taken seriously here in Malaysia at this time being and the gap between awareness and action plan needs to be filled in order to come up with a proper solution for this information technology related threat. As a result, possible countermeasures were suggested. On social perspective, people as consumers can be educated on the threat behind the advantages of technologies such as PayWave or PayPass credit cards, Touch-n-Go cards or even Malaysian identification card known as our MyKad so that they can be extra careful. On the other hand, technology expert may work closely with relevant authorities and banks to increase the security of the RFID technology itself. Overall, this can facilitate future research in this area thus increase not only the public awareness, but also for relevant authorities to come out with policies, rules and regulations and for technology providers considerations in improving the security of RFID as a wireless communication tool.

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TABLE OF CONTENTS

AUTHOR'S DECLARATION	i
ABSTRACT ACKNOWLEDGEMENT TABLE OF CONTENTS LIST OF TABLES LIST OF FIGURES LIST OF ABBREVIATION	· ii
	iii
	iv
	vii
	viii
	ix
CHAPTER ONE: INTRODUCTION	1
1.1 Research Background	1
1.2 Problem Statement	2
1.3 Research Objectives	2
1.4 Research Questions	3
1.5 Significance of Research	3
1.6 Research Scope	3
1.7 Research Design	4
1.8 Report Outline	4
CHAPTER TWO: LITERATURE REVIEW	6
2.1 Definition and Characteristics	6
2.2 Vulnerabilities and Threats	6
2.2.1 Technology-Related Problems	7
2.2.2 Privacy & Ethics Problems with RFID	8
2.2.3 Security Concerns	9
2.3 Types of Attack	10
2.3.1 Identification and Sniffing	10
2.3.2 Monitoring and Tracking	11
2.3.3 Alerting and Denial of Service	- 11
2.3.4 Insert Attack	11
a.J.⊤ Hiser aluck	11