

UNIVERSITI TEKNOLOGI MARA

**PSYCHOLOGICAL
DETERMINANTS OF MOBILE
CYBER HYGIENE:
THE ROLE OF MOBILE
ATTACHMENT IN MALAYSIA**

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ABSTRACT

This study examines the psychological determinants of mobile cyber hygiene in Malaysia, focusing on how mobile attachment interacts with Protection Motivation Theory (PMT) appraisals. Mobile devices have become everyday tools, effectively “walking servers” that are used to store sensitive personal and institutional data. Yet much of what we know about cybersecurity behaviour is built on desktop contexts, leaving mobile-specific psychology, particularly emotional attachment to phones, underexplored. Aligned with this gap, the study investigates how mobile attachment interacts with PMT appraisals to shape mobile cyber hygiene, testing in particular how attachment influences intention and behaviour through threat and coping pathways. The aim was to identify and test key psychological determinants, namely mobile attachment, threat appraisal, and coping appraisal, that shape mobile cyber hygiene (intention and behaviour), grounding the model in PMT and mobile attachment theory. Mobile attachment is conceptualised as a higher-order psychological factor reflecting users’ emotional and functional reliance on mobile devices. Threat appraisal and coping appraisal are not modelled as separate constructs in the framework, but are represented through their lower-order PMT constructs, namely perceived threat severity, perceived vulnerability, self-efficacy, response efficacy, and response cost. A quantitative survey of Malaysian users (463 respondents) was analysed using a two-stage PLS-SEM approach in SmartPLS, complemented by Importance–Performance Map Analysis (IPMA) to translate statistical results into actionable priorities. Findings show that intention is significantly predicted by perceived threat severity (PTS), perceived security vulnerability (PSV), self-efficacy (SE), response efficacy (RE), and Mobile Attachment (MA). Mediation tests indicate that PTS, PSV, SE, and RE mediate the effect of MA to intention, whereas response cost (RC) paths are not supported. IPMA highlights PTS, MA, and SE as high-importance, high-performance levers. The study concludes that mobile cyber hygiene is shaped by both PMT appraisals and users’ attachment to their devices, with emotional bonds amplifying risk and coping evaluations that culminate in intention and behaviour. The non-significance of RC should be viewed as a usability achievement where mobile technology developers have embedded security controls so seamlessly that users do not feel any meaningful “cost” when performing protective actions on their mobile devices. Future research should conceptualise and validate new constructs that capture user trust in AI-security trust and ambient protection perception, and examine how these perceptions shape intention and behaviour in mobile cyber hygiene.

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CHAPTER 1

INTRODUCTION

1.1 Chapter Overview

This chapter provide an overview of the entire research project. This chapter presented the background of the study, followed by the problem statement, research questions, and research objectives. The chapter also explained the relationship between the problem statement, research questions, and objectives of the research. Additionally, an overview of the theoretical framework and hypothesis was presented, along with the significance of the study, context, scope of the study, and definitions of the critical terms used in the study. Figure 1.1 presented the structure of Chapter 1.

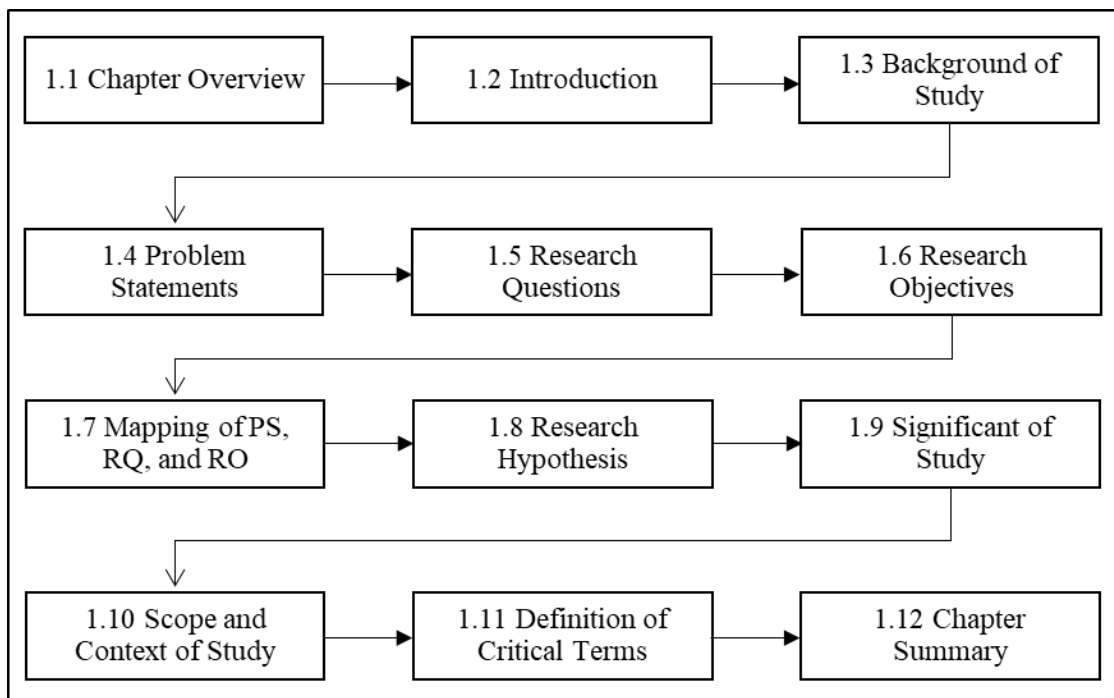


Figure 1.1 Chapter 1 Overview

1.2 Introduction

In cybersecurity, the greatest vulnerability is often the one who sits behind the keyboard. This can be further explained by the fact that technological defences, such as encryption, firewalls, and other security applications, were crucial and effective,



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