**ABSTRACT**

Despite the rapid escalation of cyber threats, there has still been little research into the foundations of the subject or methodologies that could serve to guide Information Systems researchers and practitioners who deal with cyber security. In addition, little is known about Crime-as-a-Service (CaaS), a criminal business model that underpins the cybercrime underground. This research gap and the practical cybercrime problems we face have motivated us to investigate the cybercrime underground economy by taking a data analytics approach from a design science perspective. To achieve this goal, we propose (1) a data analysis framework for analyzing the cybercrime underground,(2) CaaS and crime ware definitions, and (3) an associated classification model. In addition, we (4) develop an example application to demonstrate how the proposed framework and classification model could be implemented in practice.

We then use this application to investigate the cybercrime underground economy by analyzing a large dataset obtained from the online hacking community. By taking a design science research approach, this study contributes to the design artifacts, foundations, and methodologies in this area. Moreover, it provides useful practical insights to practitioners by suggesting guidelines as to how governments and organizations in all industries can prepare for attacks by the cybercrime underground underground market where illegal services are provided to help underground buyers conduct cybercrimes, such as attacks, infections, and money laundering in an automated manner,”.

Sood and Enbody have suggested that crimeware marketplaces have three key elements, namely actors (e.g., coders, operators, or buyers), value chains, and modes of operation (e.g., CaaS, pay- per-install, crimeware toolkits, brokerage, or supplying data). Periodic monitoring and analysis of the content of cybercrime marketplaces could help predict future cyber threats.

**LIST OF CONTENTS**

**ABSTRACT**  **i**

**LIST OF CONTENTS ii-iii**

**LIST OF FIGURES iv**

**LIST OF TABLES v**

**CHAPTER 1 1**

**1. INTRODUCTION 1-4**

1.0 Overview 1

1.1 Motivation 1

1.2 Objective 2

1.2.1 Advantages 2

1.2.2 Disadvantage 2-3

1.3 Feasibility Study 3-4

**CHAPTER 2 5**

**2. Literature Survey 5-7**

2.1 Comparative analysis 6-7

2.2 Results and inference drawn 7

**CHAPTER 3 8**

**Existing and Proposed System 8-9**

3.1 Existing System 8

3.2 Proposed System 9

**CHAPTER 4 10**

**System Requirement Specification 10-13**

4.1 Fuctional Requirements 10

4.2 Non-Functional Requirements 10-12

4.3 Software and Hardware Reqirements 12

4.4 SRS Table 13

**CHAPTER 5 14**

**Architecture 14-16**

5.1 Modules 15

5.2Algorithm16

**CHAPTER 6 17**

**System Design and Implementation 17-18**

**CHAPTER 7 19**

**Screen Layout 19-24**

**CHAPTER 8 25**

**Database Design 25-32**

**8.1 E R diagram 25-27**

**8.2 DataFlow diagram 28-29**

**8.3 Table Structure 30-32**

**CHAPTER 9 33**

**Use Case Diagram 33-36**

**CHAPTER 10 37**

**System Test 37-40**

**CHAPTER 11 41**

**Limitations and Drawbacks 41**

**CHAPTER 12 42**

**Future Work 42-43**

**CONCLUSION 44**

**REFERENCES 45**

**LIST OF FIGURES**

Figure 5.0: Architecture Diagram 14

Figure 5.1:Modules for Implementation 15

Figure 6.0:System Design Module 17

Figure 6.1:System design Results 18

Figure 7.0 Screen Layouts 19-24

Figure 8.1 E R Diagrams 25-26

Figure 8.2 DataFlow Diagrams 28-29

Figure 9.0 Use Case Diagram 33

Figure 9.1 Sequence Diagram 34-35

Figure 9.2 Class Diagram 36

**LIST OF TABLES**

Table 4.3: SRS Table 13

Table 8.3 Table Structures 30-32

Table:Register model 30

Table:Upload model 30-31

Table:Chat model 31

Table:Request model 31

Table:FeedBack model 31-32

Table:User Chat 32

Table:Algorithm model 32

Table 10.0:Test cases 40