UNIVERSITI TEKNOLOGI MARA

CYBERSECURITY IN ASEAN: THE EFFECTIVENESS OF THE INITIATIVES TAKEN BY ASEAN IN SECURING THE REGION

NURALYA BALQISH BINTI JOHARI

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ABSTRACT

Since the late 20th century, the world has experienced a great revolutionary in the area of information technology. This can be seen where cyber space has becoming necessity for individuals' life, governments, business and also organizations. According to Internet World Stats (2017), the internet users in Asia region in as of June 2017 is 49.7%.This is because, cyber space has become an essential platform to support national growth due to its borderless connection. However, this borderless connection throughout the world could create a lot of security problem (Lalitha, 2012). This can be seen when the problem of cyber-attacks is currently increasing its seriousness in the world. Due to this problem, cyber security has becoming a critical research and development in the world and also in the Association of Southeast Asian Nations (ASEAN) region. Over the past 50 decades since ASEAN is founded, the problem of cybercrime often occurs and increasing in the ASEAN region. Due to this, since the problem is very serious as it can threaten the security of the region, a lot of cyber security initiatives has been taken by ASEAN (ASEAN, 2017). Hence, this study aim to examine the effectiveness of cyber security initiatives taken by ASEAN in securing the region. The study focused on three section, which is first, to identify the cyber security initiatives implemented in ASEAN, second to examine the effectiveness of cyber security initiatives in ASEAN by looking on each member states and lastly is to identify the obstacles faced by ASEAN and measures taken to counter cyber threats. It is hope that the study can contribute to the improvement of the effectiveness of cyber security initiatives by ASEAN in order to secure the region.

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TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

This chapter focuses more on the introduction of the study. This study investigates the effectiveness of the initiatives taken by Association of Southeast Asian Nations (ASEAN) in securing the region. Section 1.1 discussed on the background of the study, Section 1.2 describes the problem statement and Section 1.3 states the research questions. Next, Section 1.4 explained about research objectives while the scope of the study, discussed in Section 1.5. Meanwhile, Section 1.6 is all on the significance of the study while Section 1.7 explained the definition, terms, and concepts comprised of the study.

1.1 Background of the Study

Since the late 20th century, the world has experienced tremendous revolutionary in the area of information and communication technology. Recently, Industry Revolution 4.0 has been in traduced in the world. This revolution is based on the technological concepts of cyber physical systems that merge real world and virtual world (Bernard, 2016). Cyber-physical systems are monitored, organized and integrated by computing and communication fundamental. Besides that, the revolution also facilitates the vision of the Smart Factory, and for a factory to be considered as Industry 4.0, it must include interoperability, information transparency, technical assistance and decentralized decision making (Marr, 2016). Not only that, there are 8 pillars of the Industry 4.0, which are autonomous robots, simulation, horizontal and vertical system integration, industrial Internet of Things (IoT), additive manufacturing, augmented reality, big data analytics and cyber security (Prakash, 2016). So it can be seen that cyber security is also one of the pillars of Industry 4.0 as it is very important in protecting the manufacturers' most valuable data in the industry.

According to Maurer (2015), due to this revolutionary, in the era of globalization, cyber space has becoming a need of individuals life, governments, and enterprises and it connects