Information Technology Security Issues: Economic Approach

Delonta Johnson

Old Dominion University

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Introduction

There is an ongoing threat that millions of people face just at their fingertips. Technology has grown to support the connection of hundreds of millions of people instantaneously. Smartphones, laptops, tablets, and other portable electronic devices have allowed for the convenience of communication and information gathering. Network technology has permitted businesses to optimize production, communication, and information storage. This transformation of the business process has improved the user interface, decreased communication time, and multitasking within the general workplace. Though information technology has revolutionized the business world, there are also many many drawbacks. Network security has been an ongoing problem for businesses. The interconnectedness of the world has granted millions of people access to information. Methods to access classified or confidential data has been made convenient and as a result, businesses are the primary sufferers. Not only do businesses have to worry about the threat hackers pose to the network businesses also have to worry about the financial loss as well.

Big Bad Bugs

To understand the security issues within information technology, it should be defined. Information technology is simply a discipline that explores interconnected electronic devices that are used to access, store, and manipulate data. Every day, computer networks contaain information at risk of being exposed to unauthorized individuals. According to Chlotia Posey Garrison, professor at the Department of Computer Science, and Matoteng Ncube, member of the Department of Mathematics and Statistics at the University of West Flordia, found, "...The institution with the greatest number of breached records was business (p.221)." One of the most common cyber attacks that businesses face are ransomeware attacks. Ransomware attacks involves the encryption of company data to restrict appropriate access (Witts, 2023)." Ransomware cost businesses on average of $116,000 per attack (Witts, 2023).

Businesses Take the Big Hit

Businesses utilize information technology to improve communication. Information technology is the foundation to a businesses' network infrastructure and security. The obstruction of this physical and

digital system has the potential to halt of impede business operation. Data and access to private network systems has become valuable and easily accessible for hackers. Scholars from Morocco Muhammad V University have found that since 2005, 11.5 billion records have been lost or stolen (Hammouchi et al., 2019). The losses are a result of data breaches that impact businesses financially. The study (2019) also finds that Healthcare, Medical Providers & Medical Insurances Services have the highest rate of data breaches with over 36% (Hammouchi, 1007). Data breaches in this field of business is typically due to the type of information being stolen. Medical records are considered very valuable. The data breaches caused by hackers are costly as well. According to a 2011 Study conducted by Verizon RISK, "For the fiscal year 2010, the Secret Service arrested more than 1,200 suspects for cybercrime violations. These investigations (2011) involved over $500 million in actual fraud loss and prevented approximately $7 billion in additional losses (Baker, 2011). Financial losses after a data breach significantly hinders a business from conducting operation (p.6). Stop cyberthreats before it immobilizes a business is a top priority, but wont be effective if businesses are unable to pay for it.

Creating and maintaining an IT system is very costly. Sabyasachi Mitra and Antonie Karim Chaya, members of the Dupree School of Management at the Georgia Institute of Technology, found (1996) that, "larger companies spend more money on information technology as a percentage of their revenues than smaller companies (p.29). Smaller companies are unable to equip their businesses with the necessary. Small businesses are unable to financially maintain their computer network, thus making small businesses more susceptible to cyberattacks. Small business spend at most, $49,000 on information technology to support their business. (Lesonsky, 2019). $49,000 is unable to support a network infrastructure. This has led to

<center>**Conclusion**</center>

Information technology has essentially changed the way businesses save data. Everyday day, thousands of bits of information are beineg proecssesed, preserved, and manipulated to improve and expedite the businesses process. Computer networks have revolutionized computer networks thus, creating opportunities to improve communication. It it important that businesses develop a coherent plan

to decrease the chances of data breach. However it is important to acknowledge the fact that money play a

significant role in the increase or decrease of cyber attacks on a business.

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