

THE FACTORS ON GREEN INFORMATION SYSTEM ADOPTION TOWARDS
ELECTRONIC INDUSTRY IN MALACCA

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APPROVAL

I/We hereby declared that I/We had read through this thesis and in my/our opinion that this thesis is adequate in terms of scope and quality which fulfil the requirements for the award of Bachelor Degree in Technology Management (Technology Innovation)

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The thesis is submitted in partial fulfilment of the requirements for the award of
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DECLARATION

“I declared that this report is the results by my own work, except certain explanations and passage where every part of it is cited with sources clearly stated in Reference”

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DEDICATION

I would like to dedicate this research to my beloved parents, siblings and my supervisor Dr. Yusri bin Arshad, for the valuable knowledge. Their unconditioned love and encouragement have allowed me to strive and push myself beyond limits which I never thought would be possible. With their endless support, I was able to complete this research paper smoothly.

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ABSTRACT

The influence drivers are the most important thing to take into consideration when organizations want to adopt or implement an innovation into their companies. Green IS is one of the latest researches which can be related with sustainable business practices. Green IS has been a great beneficial towards the industries and it gives a lot of positive effects to the organization as well as the environment. This research focus to analyse the factors affect the green IS adoption in electrical and electronic industries in Malacca. Besides, this study also examines the most significant driver which influenced green IS adoption. A survey on green IS adoption was conducted and 114 data were collected and analysed. Based on the result shows perceived ease of use, perceived usefulness, perceived relative advantage and compatibility have significantly positive influences on the green IS adoption in electrical and electronic industry in Malacca. Meanwhile, the complexity factor has significantly negative towards green IS adoption. This research also explains about the suggestion for future research.

Keywords: *Green IS adoption, Influenced drivers, Electrical and Electronic Industry, Malacca*

ABSTRAK

Faktor yang dipengaruhi adalah perkara yang perlu dititikberatkan untuk diambil kira apabila organisasi ingin mengadopsi atau melaksanakan inovasi ke dalam syarikat mereka. Sistem Informasi (SI) Hijau adalah salah satu penyelidikan terkini yang boleh dikaitkan dengan amalan perniagaan yang mampan. SI Hijau telah memberi manfaat besar kepada industri dan memberi banyak kesan positif kepada organisasi serta persekitaran. Kajian ini adalah untuk mengkaji faktor-faktor yang memberi kesan terhadap penggunaan SI Hijau dalam industri elektrik dan elektronik di Melaka. Selain itu, kajian ini juga fokus untuk mengkaji faktor yang mempengaruhi pengguna SI Hijau. Satu kaji selidik mengenai penggunaan SI Hijau telah dijalankan dan 114 data dikumpulkan serta dianalisis. Berdasarkan hasil kajian menunjukkan kemudahan penggunaan, tanggapan terhadap penggunaan, kelebihan relatif dan kesesuaian yang dirasakan mempunyai pengaruh yang positif terhadap penerapan SI Hijau dalam industri elektrik dan elektronik di Melaka. Sementara itu, faktor kerumitan mempunyai hubungan negatif terhadap penggunaan SI Hijau. Penyelidikan ini juga menerangkan tentang cadangan penyelidikan masa depan.

Keywords: *Adopsi SI Hijau, Faktor yang mempengaruhi, Industri Elektrikal dan Elektronik, Melaka*

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LIST ABBREVIATIONS

ABBREVIATIONS	MEANING
IS	Information System
TAM	Theory of Adoption Model
DOI	Diffusion of Innovation

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CHAPTER 1

INTRODUCTION

1.1 Research Background

In this new era, 'Green' is a common thing which most people say as they started to realize the impact of environmental challenges that all of us faced. Thus, people come out with different kind of methods and technologies to reduce or minimize the harm to the ecosystem. Besides, there are certain people who try to implement it in the Information System.

Many IS researchers concern about the role of IS and its contributions towards eco-sustainability,(Ijab & Molla, 2011). This shows most of the people starting to take actions and come out with better solutions as to balance the ecosystems. According to Dedrick (2010), These attempts can straightforwardly lessen IT costs, so there is a solid motivating force for associations to embrace them. Proof from studies affirms that IS associations use green methods to respond to these incentives

As organisations embrace sustainability agendas, they will need to develop relevant capabilities to deliver on the promise (Barbara Pernici, 2012). In other words, the managerial sites need to take initiative by developing a strategy that can help to improve sustainability of capabilities between the organization. Moreover, there are other factors influence the adoption of green IS towards organizations to enhance the products, services, capabilities and others. Therefore, researcher intends to discover more about the factors.

1.2 Problem Statement

Due to the rising and explosive growth of technologies, internet, data and others can cause harmful towards the people and also the environment. Therefore, the green information system created as to have an impact on sustainability through the uses of various energy sources, types of transportation, ways of building and manufacturing for the current society.

Besides, there is also lack of awareness among consumers about the knowledge of green information system and that is why we need to advertise about the green IS to improve the awareness. Plus, not all of the organizations in the industry implement and practice green IS in their company. Organizations should adopt green IS in their company to capture, monitor, utilize and standardize data that can aid power efficiencies.

Moreover, green IS includes power consumption and management, manufacturing methods, information centre design and activities, computer equipment recycling and its end-of-life problems, total ownership cost issues, system efficiency and effective system usage and environmental, social, IT usage and disposal (Stoney Brooks, 24). In short, green IS may also include ideas that have been comprised which could include other facets. Furthermore, there are a lot of

scholars have been trying to identify the relationship between IS and the environment (Melville, 2012).

Therefore, in this study, researcher wants to identify the drivers which influenced green Information System adoption among electrical and electronic companies in Malacca. From the problem statement which has been stated above, the prominent of conducting this research is to create realization and increase their knowledge regarding about the importance of green IS adoption. Green IS surely has a greater potential to address green issues compared to green IT (Watson et al, 2008).

1.3 Research Questions

- i. What are the implementation levels of perceived ease of use, usefulness, relative advantage, compatibility and complexity towards behavioural intention of companies to use green Information System?
- ii. What are the drivers that influence consumers to adopt green Information System towards behavioural intention to use green information system?
- iii. Which one is the most significant driver that influence the adoption of green IS towards electrical and electronic industry?

1.4 Research Objective

- i. To profile the implementation levels of perceived ease of use, usefulness, relative advantage, compatibility and complexity towards behavioural intention of companies to use green Information System.

- ii. To identify the relationship between the drivers that influences green Information System towards behavioural intention to use green information system.
- iii. To evaluate the most significant driver that influence the adoption of green IS towards electrical and electronic industry.

1.5 Scope

The scope of this research is focusing on the factors or drivers that influence green IS adoption, consumers' awareness and their knowledge about green IS and also the most importance drivers which give impact towards green information system adoption. The researcher will randomly select companies in Malacca to carry out the email questionnaires surveys and online questionnaires. The target respondents' are the executive level and above as they have more experiences in many jobs, challenges and implement new strategies, and also employees who involve mainly in information system and information technology industry.

1.6 Limitations

While this study is carefully prepared, there are some limitations and shortcomings. First of all, researcher lacks of prior research studies. It is because this topic is still new and there are limitations in finding the articles and journals.

Besides, researcher also lacks of experience as this is a new thing that researcher trying to discover about the topic.

Next is financial resources problem. As a student, we will always face financial problems due to purchasing items, print or buy reference materials and others. Consequently, such limitations might be reflected on the results of the study.

1.7 Significance of The Study

The finding of this research in the electrical and electronic industry which located in Malacca will help the company to be more aware about the green IS adoption. Besides, they can enhance their products and service by applying the green IS adoption within their company. By improving their knowledge may boost their productivity within the organization.

Therefore, this research will be a great opportunity and advantage to the company as they can find out the factors affect green IS adoption. Plus, from this research, they also can find out the most significant drivers influence green IS adoption. Thus, company can save more money by applying this knowledge towards their company.

1.8 Summary

This section clarifies about the context of the study, questions which have been pointed out and objective of the research. Furthermore, this part clarifies the extent of the study scope and the researcher's limitation to conduct the research. The following part portrays the literature review of the market orientation. Theoretical framework will be suggested in the second chapter.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction to Literature Review

A review of prior studies will be presented in this section. Previous studies on the Green Information System Adoption in the healthcare industry, manufacturing industry as well as supply management have been covered to ease and secure all of the processes. The review of literature played a significant part in the growth of this study as the early stage. It involves a fundamental examination and blend of information from various sources, as well as thinking about any gaps in writing and conceivable future study outcomes.