# GREEN TECHNOLOGY IMPACT ON ENVIRONMENT IN MELAKA.

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**DECLARATION**

**"I admit that everything's that I have done in this report is my actual work except the summary and the citation which is I've done explain the sources for each of them"**

**Signature : ……..**

**Name : ……..**

**Date : ……..**

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# ABSTRACT

In the past few years, a new aspect of green technology use has emerged and become a focal point of attention in order to realize development goals respecting in the same time ecological standards and norms. This "green" potential of ICT is oriented to use of ICT in transforming activities to be more energy-efficient and, as a result, to reduce greenhouse gas emissions. There is much hope that green technology can be a major part of the solution in tackling climate change and related environmental challenges. Green technology is an innovative way of using the technology either its is machine or device related to the environment protection and sustaining a future. This paper analyzes the need as well as practices of green technology system at educational institution. This paper presents the benefits to educational institutes for going green information and communication technology and also barriers in the implementation based on data collected from survey of various website of educational institutions and overall discussion and analysis. The study identified that the green technology actually give the impact or environment or not. So, the green technology will give good impact on environment including of my variable which is pollution, greenhouse, global warming, carbon footprint and energy and resources consumption in Malacca.

# ABSTRAK

*Pada tahun-tahun kebelakangan ini, aspek baru penggunaan teknologi hijau telah muncul dan menjadi titik tumpuan perhatian bagi merealisasikan matlamat pembangunan menghormati dalam masa yang sama standard ekologi dan norma. Ini "hijau" potensi ICT adalah berorientasikan kepada penggunaan ICT dalam aktiviti mengubah menjadi lebih pelepasan gas rumah hijau yang cekap tenaga dan, hasilnya, untuk mengurangkan. Terdapat banyak harapan bahawa teknologi hijau boleh menjadi sebahagian besar daripada penyelesaian dalam menangani perubahan iklim dan cabaran alam sekitar yang berkaitan. Teknologi hijau adalah cara yang inovatif menggunakan teknologi sama ada adalah yang mesin atau peranti yang berkaitan dengan perlindungan alam sekitar dan mengekalkan masa depan. Kertas ini menganalisis keperluan serta amalan sistem teknologi hijau di institusi pendidikan. Kertas kerja ini membentangkan faedah kepada institusi pendidikan untuk pergi maklumat hijau dan teknologi komunikasi dan juga halangan dalam pelaksanaan berdasarkan data yang dikumpul daripada kajian pelbagai laman web institusi pendidikan dan perbincangan keseluruhan dan analisis. Kajian ini mengenal pasti bahawa teknologi hijau benar-benar memberi kesan atau persekitaran atau tidak. Jadi, teknologi hijau akan memberi kesan yang baik kepada alam sekitar termasuk pembolehubah-Ku yang pencemaran, rumah hijau, pemanasan global, kesan karbon dan penggunaan tenaga dan sumber di Melaka.*

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# CHAPTER 1

## 1.0 Introduction

This chapter will discussed about my detail of research which is the problem statement, research objective, research question, scope, limitation and the importance of study.

My research study is about the Green Technology Impact on environment. For most people, Green technology is about reducing the impact on the environment. It is about reducing the pollution, greenhouse, global warming, carbon footprint, energy and resources consumption. However, green technology is not only part of the problem of our environmental impact, it is also part of the solution. According to the Unpacking Green IT about A Review of the Existing Literature books, author conducts a comprehensive review of both the practitioner and academic literature surrounding Green IT. By presenting the overlaps and differences between both perspectives, they aim to identify noticeable gaps in the current literature. (Stoney Brooks, Wang, Sarker, 2011).

## 1.1 Problem Statement

In today's global business environment, businesses are facing increased competitive, regulatory and community pressures. Furthermore, there is also pressure for environmental sustainability, which requires strategies to be put in place to reduce the environmental impacts caused by the products and services offered. Clem (2008) adds that going green reflects a social consciousness around saving and advancing the Earth's natural resources, preserving and protecting them for the sake of civilization. As customers become more aware of environmental issues, there is an increase in the demand for ecological products. This increased awareness of and sensitivity towards environmental issues places certain demands on business functions to become greener. In the article, it defines the field of green computing as "the study and practice of designing, manufacturing, using, and disposing of computers, servers, and associated subsystems such as monitors, printers, storage devices, and networking and communications systems efficiently and effectively with minimal or no impact on the environment (San Murugesan, Harnessing).

Engel (2008: 1) asserts that South Africa has made significant progress with environmental management in the last decade by implementing laws and strategies that focus on sustainable development and green issues. In spite of this notion, most businesses still do not recognize the need to become green. Previously, businesses assumed that incorporating 'green' into their business strategy would cost money, but they now realize that ignoring negative impacts on the environment will be costly in the future (Van der Zee 2008: 6). The purpose of going green is to use products and methods that would not negatively impact the environment through pollution or depleting natural resources (Robinson (2008: 1). If the use of natural resources is reduced by using alternative sources, it will have positive outcomes such as keeping the environmental

footprint small, reducing waste and re-using materials as much as possible (Dallas 2008: 9). Furthermore, it will result in using scarce natural resources efficiently and effectively, while keeping the environment free from detrimental products. Green businesses should have green visions, with strategic plans based on long-term objectives rather than only short-term goals (Gunningham, Kagan & Thornton 2003).

Prevents Global Warming when we use coal as a source of electricity to use in our homes, coal has to be burned to create heat which will make the turbines move to produce electricity. Burning of the coal releases lots of greenhouse gases, including carbon dioxide into the atmosphere. This will cause global warming that is an increase the average temperature of the earth. Global warming can result in the melting of polar ice caps and can cause flooding in the coastal areas. Use of green energy can prevent global warming.

As we can see, the existing technology right now actually is quiet torture our environment in term of Malacca area. These problems only will disrupt the quality of work and make their company or industry cost increase time by time and also will give some impact to the environment, social,

## 1.2 Background of the Project

This research seeks to determine the impacts of application from old or existing technology into green technology in organization or something else. The motivation of the research arises from various problems encountered by workers about their old style

technology system that might be decrease or disturb their performance and productivity. This also because I want know isn't true that green technology have impact related on pollution, greenhouse, global warming, carbon footprint, energy and resources consumption. So, this research has be do to know what is the result for all my questions.

The main target for this research is about to find how the green technology can give the impact to the environment include the bad impact and as well as the good impact too. According to the Ace Cloud Hosting articles, they said that resources are limited and they should be managed in such a way that our future has some silver linings to it. Firstly is Tons of Electronic Waste. Majorly pronounced E-Waste, this is a major threat that has an impact on our environment since the machinery came in. Tons and millions of dump get collected daily around the globe in junkyards. Also, it produces some unbearable toxic that can lead to various unknown deadly diseases. In order to recycle e-waste, we should shift towards Green technology and make use of environment friendly products. Secondly is the Limited Resources. There might be a headline in the future that says *"*NO MORE RESOURCES TO PRODUCE ELECTRONICS GOODS*"* until manufacturers around the globe start taking this issue seriously. Resources are limited and should be utilized efficiently in order to save environment. Green ideas that lead to minimize the usage of these scare resources should be used as much as possible. Cloud technology is one great example of that. And lastly is about the Energy Cost which is the thing that runs most of these technological processes all around the globe doesn't come at an easy cost. Producing electrical energy these days is getting costlier and limited. The usage and demand for energy consumption has led to crisis situation in many countries. The problem can only be solved by moving to other clean and green options. Solar energy, bio gas and wind energy are great motivators towards that.

## 1.3 Research Question

A research question is an answerable inquiry into a specific concern or issue. It is the initial step in a research project. The 'initial step' means after you have an idea of what you want to study, the research question is the first active step in the research project.

1. What are the impact of green technology on environment?
2. What the strategies for overcome the environment problems.
3. How effective the green technology on environment?

## 1.4 Research Objective

In order to make this project run smooth and successful, the objective below has been declared that it must be archive to make this project task complete. Objective is always as a guidance of any project including this, so below is the listed objective that has been created.

1. To identify what are the impact of green technology on environment.
2. To find a way or strategies to solved that problem.
3. To measure the effectiveness of green technology on environment.

## 1.5 Scope

My research scope of this project is to determine the impact or effect on environment when using or change into green technology either is give a good benefits or not.

In this research, I have chosen the public respondent to answer my questionnaire and this research has be done at Malacca area.. I choose them because nowadays, most people must have at least one machine or device made using green technology.

So, i have choose 100 respondent from variuos level of academic. The method that I'm use in this research is by distribution the questionnaire to the respondent in Malacca area.

**1.6 Limitation**

Throughout this study, researcher has several limitations that can become challenges in the focus area. Researcher decides to only cover the issues in Malacca which would allow the processes of getting the data more facilitate. Furthermore, that location is nearly in my hometown, so it will make my works become easier and also easy to update with them.

Secondly, is not all from my respondent is using green technology product. So some of them cant answer that question properly. But the amount of them is very little, so the result of my research is quite good and also not disturb and research processs.

Thirdly is the age. Actually i not have any specific target for level of age because my targer respondet is from public people, so i never know what are their age. I just distribute the questionnaraire and after that, im using the SPSS software to find it. So the limititaion is maybe the result  of answer is fluctuated and also maybe good. This we can know after im doing the SPSS calculation.

## 1.7 Importance of the study.

In this research, the environment impact from the green technology use is the important things in this study. This study seeks to help and guide for those who involve working in organization to choose the organization that use green technology especially green computing system because this will make their working process smoother and also can save the environment too. The purpose of going green is to use products and methods that would not negatively impact the environment through pollution or depleting natural resources (Robinson, 2008). If the use of natural resources is reduced by using alternative sources, it will have positive outcomes such as keeping the environmental footprint small, reducing waste and re-using materials as much as possible (Dallas, 2008)

This green technology usually as we know it's a technology that can save the environment like the global warming, so through this study, we can identified how far this green technology can give the impact to the environment either in god or bad impacts.

Besides that, the outcome of the study can convince people or consumers in organization to migrate their system to the green technology. It automatically will increase the economic growth of Malaysia and as well as save the environment in Malacca.

## 1.8 Structured of Proposal

| | |
|---|---|
| Chapter 1 | This chapter describes the overview of background of study, research problem, research objective, research question. Hence, the scope of the research, limitations, and structure of this research are also present. |
| Chapter 2 | The researcher will explain about the literature review related to the adoption of mobile from previous research and construct conceptual framework that relates with the research objective. |
| Chapter 3 | Explain briefly about the method used in this research. The explanation of the chosen methodological approach and research techniques will also be included. |

## 1.9 Summary

The green technology actually is a good things for environment because it have a lot of good impacts that the bad impacts. Other than that, company or organization also can migrate or apply it in work system because it will help them to reduce the cost, the time and also will increase the level of productivity in future. There also have own advantage and disadvantage if they choose to stay with old technology or moving to

green technology. But the main thing about the green technology is about to reduce the carbon footprint and make every work can be done in computer.

In the other hands, the Green technology also very important because of our limited resources is limited and should be utilized efficiently in order to save environment. Green ideas that lead to minimize the usage of these scare resources should be used as much as possible.

According to the Green Computing Journal, it said that Organizations face lower energy costs and even save a lot on government taxes when they follow government policies on environment and produce goods following strict environment norms. (Biswajit Saha, 2014). So this can be proving that the green technology will help the company or organization to become smarter, efficient and saver in future and as well as can save the environment too.

# CHAPTER 2

# (Literature Review)

## 2.1 Introduction

The literature review was conducted to improve the understanding of the study carried out by reference to a variety of books, journals and earlier studies ever conducted, which is available from the library and get the latest information on research related to study of green technology effects on environment. Twitter believes strongly in energy efficiency and optimization of resources for minimal environmental impact. As we build out our infrastructure, we continue to strive for even greater efficiency of operations. (Twitter, 2014)

This chapter will discuss the secondary data gained in supporting the study based on the reading list of publish writing that related to the research field before researcher proceed to this primary data. Other than that, this also as a review from the previous research that related to the project will be discussed. To have a brief understanding of the researches related to the project, a few literature reviews had been done. This literature review will story you about the how far green technology gives impact to the environment. Green computing, the study and practice of efficient and Eco-friendly

computing resources, is now under the attention of not only environmental organizations, but also businesses from other industries. Additionally, this chapter also will examine the green technology effect on environment and followed by the theoretical frameworks for this study as well as the reviewed to spur the research parallel its objectives.

## 2.2 Definition of Terms

The several term used that related with the study such as green computing, cloud computing, network shared-drive, and paperless office, information system, green information system, information technology and green information technology in aspect of green technology terms. All the details of the term above will be explain in below.

### 2.2.1 Green Computing

Green computing is the environmentally responsible and Eco-friendly use of computers and their resources. In broader terms, it is also defined as the study of designing, manufacturing/engineering, using and disposing of computing devices in a way that reduces their environmental impact. Many IT manufacturers and vendors are

continuously investing in designing energy efficient computing devices, reducing the use of dangerous materials and encouraging the recyclable of digital devices and paper. Green computing practices came into being in 1992, when the Environmental Protection Agency (EPA) launched the Energy Star program (Michael, 2007).

Green computing is an effective approach to protect our environment from the hazardous material and its effects that comes from the computer s and its related devices. It is an effective study of environmental science that use manufacturing, using, disposing and recycling of computer and other electronic devices. In this research paper we concern about the Green computing, its needs and steps toward Green computing by a common man. This research paper describes that today computer is basic need of everyone. No individual or organization can work without computer, But they also have to aware about the harmful impacts to use of computers, its manufacturing and disposing and what steps we should take to reduce the harmful impacts and save our environment.

Green computing is an emerging concept towards reducing hazardous material and to save our environment from harmful impacts of the use of computers and other electronic products. Green Computing is concerned with the manufacturing, using and disposing of computers with no impact on environment. Green computing aims to reduce the carbon footprint generated by the Information Systems Business while allowing them to save money (Frudle, 2005).