Advantages of Green Technology to Mitigate the Environment Problems

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Abstract: Green technology can be defined as the use of science and technology to create products that are less harmful to the environment. It is environmentally friendly, the aim of it is to protect the environment. It can also refer to clean energy productions, which means using alternative technology and fuels that do not harm the environment. This technology includes infrastructure tech, which uses to create clean energy, recycle waste, purify water and natural resources conservation, and so on. Many countries are looking to support the growth of the economy and improve their citizens lives to live in a healthy environment without harming the planet, and this can be done by having a full understanding of this tech. In this research, a survey has been done to exam the community awareness about green technology in three cities in Iraq. The result shows that most people from different generations are not aware of this technology. As a result of this surveying, a few recommendations have been suggested to raise awareness about this technology importance , especially for future generations. In addition, the advantages of it have been introduced to have full understand of green tech and adopted it in the community.

Keyword: Green technology, Green Environment, Renewable energy, eco-friendly technology.

1. Introduction
Green technology or environmental technology is the activities that have minimal effects on the environment. These activities include: reducing wastage, energy generations, deploying non-toxic/harmful substances, efficiency improvements, and so on. Environment conservation became a point of concern after significant events had occurred in the world. For instance, the vast industrial accident (India 1984), oil crisis (1970 -1980), the nuclear disaster (Chernobyl 1986), ozone layer hole, and amazon rainforests clearing [1]. These events have raised awareness about the importance of environmental health in the world. Different governments, companies, and organizations have begun the environmentalism process and enacted laws and regulations for green management.

Green managements are about the environment and sustainability. It can cause enormous changes in companies operations to green their products, operations, and facilities. It can change their sustainability business to competitive advantages. Adopting green innovation by companies and organizations keeps the environment healthy and clean. This can be done by applying service, products, and technology that do not negatively affect the natural environment resources. For instance, manufacturers and software tools keep the environment clean from harmful technological wastage [2]. In other words, to keep the environment clean, green technology applications must be intensive in economic expansion. The world has many natural resources that are depleted already, such as household batteries and electronics. Some of these resources contain harmful chemical that causes pollution to groundwater and soil [3].

Knowing the positive effects of this innovation is vital. People should know the benefits of it in their lives and businesses. It can keep the planet healthy and help people to reduce their bills. They should know that green products are healthier and good economical for them.

In 2050, four forces will control the world shape: climate, demography, globalization, and natural
resources [2, 3]. With natural world depletion, the world is looking for another resource for generating renewable energy. United nations assert in their green technology report that the environment policy of countries is critical [4]. As the population is expected to increase by 2050, it is crucial to evaluate the expansion of the productive economic pace. This expansion must balance with respect to the natural and human capitals.

Many people have not thought about the negative effects of technology on the environment. Technology has polluted our world; global warming and the ozone layer hole are the best examples of this. In addition, hurricanes, droughts, glaciers shrinking, floods, intense heat waves, and rising sea levels all these phenomena were expected to occur for decades. Scientists expect worse and worse things are going to occur if people do not change their ways in life [5]. For instance, the temperature is predicted to rise 10 degrees in the next decades [6].

To maintain the environment healthy, many things are needed, such as clean air, energy renewable, a stable climate, non-toxic water, and green waste management. Maintain environmental quality is important to have a better world, especially for future generations.

As global warming is concerned, the most important topics on the united nations agenda are green lifestyle, green economy, and green technology. So green innovation will be adopted in the world, and the green sector is going to invest in all sectors of life. Green technology is the only innovation that does not harm living things. It is the 4th industrial revolution core where robotics, artificial intelligence, and automatic vehicles use green digital. As the fossil fuels exhaustion is a big threat to human development and sustainability and is expected to be depleted by 2050[2], green innovation aim is to limit fossil fuel consumption.

Many researchers have found that awareness of green products and practices among people is only moderate [7]. Researches [8][9][10][11] examine the green technology awareness among students in different universities, they have found that students claim to have a full understanding of the environment, but in reality, their green skills are not. This research aims to evaluate the need for innovative technology enforcement in the community. This can be done in many steps. The most important first step is raising awareness about the advantages of this tech- and introduced it to the community

2. Advantages of Green Technology

Green technology refers to the systems and products that minimize the negative effects on the environment and human activities. For instance, it does not emit any gas that causes any harm to the air, and it uses energy and natural resources that reduce environmental degradation [12,13].

There are many advantages of green technology includes: it is environmentally friendly that means no harmful emission to the air, does not require a lot of money for its operation, never run out because of its renewable technology, it helps to reduce CO2 emission in the air, it reduces global warming. In other words, green technology is a clean energy source which means it does not emit anything that may damage the atmosphere and environment. Green innovation is a replenished source, while oil is predicted to dry up in approximately ten years.

By adopting green technology, companies can get advantages and markets shares among competitors. Green innovation reduces the cost of input, energy, maintenance, and operations. In addition, it can improve the environmental image of companies, especially for competitors consumers who are environmentally conscious [14].

Green technology involves [12]:

- Assessment and monitoring technology that measures environmental conditions.
- Prevention technology avoids any products damage environment, or it is to minimize damages to the environment.
- Restoration and remediation technology is used to improve ecosystem degraded conditions naturally.

Green technology applications include [15]: solar cell, which is one of the best application of green technology because it is used to generate electricity from solar energy, reusable water bottle to reduce
plastic waste, solar water heater installation, wind generation, rain collection system, green technology buildings which include many friendly technologies for impact reduction on the environment, ocean thermal energy, biomass, biodiesel, geothermal and so on. Figure 1 shows the best definition of green power based on its relative environmental benefits [16].

Figure 1: The definition of green power based on its relative environmental benefits [16].

2.1. Methodology and Result
A set of questions were constructed based on the objectives of the research. These questions were used in order to obtain the data. The samples of 400 people of different ages and different levels of education were chosen randomly to answer the questions. The three points scale questionnaire: 1=agree, 2=disagree, 3= not confident or do not know

Green awareness of people from different generations was measured in this empirical research.

In general, most people who were questioned do not have any idea about green technology. Most of them need an explanation before answer any question. So, some questions were removed from the list, and others were modified to be simple and more understandable for people to answer.

| Questions                                                      | Agree=1% | Disagree=2% | Not certain or do not know=3% |
|---------------------------------------------------------------|----------|-------------|-------------------------------|
| 1 Implement green technology products and services in Iraq    | 25       | 5           | 70                            |
| 2 Recycle and reusing different types of waste                | 87.5     | 2.5         | 10                            |
| 3 I believe green technology is important                      | 65       | 0           | 35                            |
| 4 Planting trees helps to reduce greenhouse effects            | 90       | 0           | 10                            |
| 5 It will be beneficial for my health to use green technology | 60       | 0           | 40                            |
| 6 Green technology generates better economic growth            | 20       | 20          | 60                            |
| 7 I need to enhance my knowledge about green technology        | 100      | 0           | 0                             |
| 8 I plan to use green technology in my future workplace        | 0        | 10          | 90                            |
| 9 I believe green technology help to reduce global warming     | 80       | 0           | 20                            |
| 10 I use green technology in my daily live                     | 5        | 95          | 0                             |
Other tables of questions about using green technology and recycling waste were removed because the answers were not pleased to show or insert in this paper. Most responses were not certain. Most people were not sure about their answers. Even the people who answered agree they have poor skill of green technology because when they were asked if they do this in their everyday life, their answers were no or they wish to. For instance, when they were asked if they separate the rubbish to be recycled later, their response was no because even if they do this, the rubbish will be collected together at the end by rubbish car. So the above answers can be considered the best result to exam awareness about green technology in Iraq. Table 1 shows that the respondents have a positive attitude about green innovation; 65% agreed with the importance of green technology, while 35% were not sure about their answers.

Most people aware that planting trees help to reduce greenhouse effects. The majority of people from different generations admit that they have to enhance their green technology knowledge. 95% of respondents admitted that they do not use or slightly use green technology in their daily lives. 80% of people believe that green innovation reduces global warming.

The last question was asked is to mention any application or example of green technology. Most of them gave popular examples such as recycling, plant trees, and so on, which are not exactly categorized as green technology. Few people mentioned green technology applications such as hydroponic, solar cells, wind generation, and so on.

3. Conclusion

Green technology includes different aspects of technologies that reduce the impact of humanity on the environment and establish new ways of sustainable development. Understanding this technique affects the implementation of it in the community. It is vital that everyone understand it well. This study is vital in order to enhance the knowledge of green technology in the community.

The study is limited only to the responses coming from three cities in Iraq from different generations. According to survey results, the awareness of green technology still cooperatively low. People need to understand this technique to implement it and save the environment. The results have shown that most people do not have enough idea about green technology, but they show a positive attitude about it after explanations. They have agreed that this technique is essential and could improve their life quality. Although the respondents admitted that they do not use green technology in their daily lives, they believe that green technology is useful and reduces global warming. In general their knowledge is still low.

Some recommendations to raise awareness of green technology are suggested, including: Firstly, the government has to emphasize green technology awareness among people; it must play an active role in raising awareness of green technology and encourages citizens and companies to use this innovation. Secondly, it is vital that green concept and value included among young generation through their educations using varied strategies such as implementing green technology subjects at all levels of education in schools, colleges, universities and so on; it must be made compulsory. Thirdly, it is essential to train technical workshops and classes and adopt green technology thinking in their daily lives.

The awareness of green technology in the Iraq community has been examined in this paper. Raising awareness of this technology is crucial among people (before it will be too late for damages fixing in the environment). People do not know much information about this innovation. This research is helpful for the government in the future to implement green technology in society.

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