

## **IMPACT OF TECHNOLOGY ON ENVIRONMENT: A REVIEW OF LITERATURE**

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### **Abstract**

The purpose of this paper is to determine the impact of technology on the environment. Technology is the base to measure development. If it causes adverse effects on the environment, it is of no use. Every firm should pay focus on the cost to be paid for using environmental resources. It promotes energy efficiency. Technology aids in energy conservation, which is one advantage of environmental sustainability. Our carbon footprint is diminished as a result. Automated transportation not only facilitates resource conservation but also promotes greener energy generation. An immense number of people can be reached by a marketer by using information technology. Thanks to technology, marketers can react swiftly to market developments.

**Keywords:** Environment, Environmental accounting, Sustainable development, Technology

### **Introduction**

Technology is a major part of everyone's life. Technological advances are encountered at home, school, and work. These technological advances have become so helpful to people's lives. Every year new technologies appear to help people to live more comfortably by allowing them to do more with little effort. But the impact has to bear out at cost of human health and environmental degradation.(Singh et al., 2023; Bala et al., 2015; Sharma et al. 2021; Mehta et al.,2022; Rehman et al.,2022) Making technological advances and preserving the environment and human health will not be possible because of the pollution resulting from the waste output, the depletion of natural resources, and the global warming resulting from the emission of carbon dioxide which causes difficulty to survive. Many health problems are being faced by humans even kids also. Mobile radiation a by product of technology has resulted in the depletion of birds due to frequency radiation which disturbs the ecological balance. (Singh et al., 2021; Bala et al., 2022; Sharma et al., 2022; Mehta et al.2022). Not only this, with the advancement of technology many manufacturing units secrete waste directly to water and land causing pollution for aquatic and soil organisms and leading to adulteration of food we grow.

The interdependency of technology and the environment is that technology is constructed to provide ways, tools, and machinery for the protection of the environment and the conservation of its resources from the harmful effects of climate change and global warming, while the environment in return provides the materials. (Singh et al., 2013; Bala et al., 2023; Sharma et al., 2021). When harmful gases like sulfur dioxide, carbon monoxide, methane, nitric oxide, and many more get introduced into the earth's atmosphere, then it leads to air pollution. Factories, burning of fossil fuels, and vehicles are responsible for the excessive release of such gases and thus technology harming the earth. Technology development leads to increased fossil fuel consumption, resource contamination, and deforestation. Due to the regular procurement of new hardware and software, as well as the ongoing training of staff in new procedures, this level of competition can become costly and stressful (Banger et al., 2017; Bala et al., 2021; Singh et al., 2015; Sharma et al., 2022)

According to “John Kenneth Galbraith”, “Technology means the systematic application of scientific or other organized knowledge to practical tasks”

Thomas P. Hughes defines technology as “Technology is messy and complex. It is difficult to define and understand. In its variety, it is full of contradictions, laden with human folly, saved by occasional benign deeds, and rich with unintended consequences.”

The term environment has been derived from the French word “Environia” which means to surround. It refers to both abiotic (physical or non-living) and biotic (living) environments. The word environment means surroundings, in which organisms live. Environment and organisms are two dynamic and complex components of nature.

According to “Douglas and Holland”, "The term environment is used to describe, in the aggregate, all the external forces, influences, and conditions, which affect the life, nature, behavior and the growth, development, and maturity of living organisms"

### **RESEARCH METHODOLOGY:**

The information in this paper is drawn from secondary sources such as journals, articles, and websites. The data has been collected from fifteen journals to study the impact of technology and its effect on the environment. The objective of this paper is to know how can technology has affected the environment as corporate work and students.

## **REVIEW OF LITERATURE**

Cetinndamar D (2001) examined the role of regulations in the diffusion of environmental technologies. Over time, many regulations have been made for the conservation of the environment while using the technology but still, this is a prominent issue which is needed to be solved. For this purpose, the Turkish fertilizer industry was selected to carry out whether firms adopt regulations to fulfill environmental needs or not. The study concluded that firms invest in the environment just for the sake of rules to be fulfilled which are imposed by government authorities. None of the firms has any pollution prevention system. It is of great need from the side of both the government and the public to take the initiative to protect the environment so that industry efficiency is increased and its cost is not bearded by the environment.

Daniels P (2005) analyzed the role of technology revolutions and social development and the shift to a green paradigm to sustain ecology. For this purpose, the data has been collected from lower-income countries to foster technology and focus on how to save material, energy, and other resources. Also, this study focuses on how to develop a link between technology and human development. The study concluded that the green techno-economic paradigm can lead to development in the economy without causing any harm to the environment.

Zulkifli et al (2009) analyzed the social and environmental accounting in Malaysia. The study was conducted to determine the depth of social and environmental accounting and corporate social disclosure knowledge and awareness among Malaysian accounting practitioners and to investigate the views of Malaysian accounting professionals regarding the importance of social and environmental accounting issues to the accounting industry. The data was collected using a mixed approach using 245 survey questionnaires, 123 survey respondents, and 7 in-depth interviews. The study concluded that they have low knowledge and awareness although they have doubts about quantification and valuation concerns, they can see that reform, which would need to be supported by legislation, may enhance company performance in terms of social justice and environmental quality.

Setthasakko (2010) analyzed what could be the barriers that lag to the development of environmental management accounting. For this purpose data were collected using a semi-

structured interview method using exploratory study and three pulp industries were selected for this purpose. The main information was gathered from chief operating officers, environmental managers, and accounting directors. The study concluded that there was a lack of building organizational learning, the organizations don't focus much on economic performance and they know very less about environmental management accounting.

Chang (2013) examined environmental management accounting in the Taiwanese higher education sector. The study focuses on the issue that organizations fail to manage the procedure of recording environmental costs from an accounting perspective. For this purpose, Taiwanese universities were selected and practices of managing the cost associated with electricity, water, and paper were analyzed. The data was collected using face to face interview method. The results showed that it looked that none of the three universities were using environmental management accounting to handle their significant environmental costs. There was still a need for improvement in environmental performance, especially from an accounting point of view.

Ribeiro (2016) analyzed the determinants of environmental accounting and reporting practices in Portuguese local entities. For this purpose, the data was collected through a postal survey of 69 Portuguese entities. During analyses of the study three variables entity size, accounting framework, and level of environmental management practices development are taken into account as important drivers of the development of environmental management practices by local entities. The findings show there has been little development of environmental accounting practices in Portuguese municipal bodies. The degree of development of environmental management and accounting regulation are additional aspects that contribute to the explanation of the level of development of environmental accounting practices in Portuguese local entities

Zolfaghari S et al (2017), analyzed the internationalization of the renewable energy industry as a high-tech and emerging industry were explored. The main purpose of this paper is to find out how companies can enter the international market and what could be the possible challenges and difficulties a firm could face ahead. The study was conducted in 9 entrepreneurial companies in Spain. It was concluded that for entrepreneurs to develop an effective internationalization plan and survive, the empirical findings of this study are

extremely crucial. The results of this study can assist policymakers in creating an effective strategy to promote the continued growth of this business in global marketplaces.

Miner K and Ameer A (2018) analyzed the effect of economic growth, trade openness, urbanization, and technology on the environment of Asian emerging economies. The study is carried out on 11 Asian countries and data is collected on a longitudinal basis which is published by World Development Indicators. The main purpose of this study conducted is to see the amount of SO<sub>2</sub> and CO<sub>2</sub> emissions in the environment and later make policies on how to control pollution through new technologies and to dispose of it properly to reduce dependency on fossil fuels and reduce pollution. The study concluded that there is still a lot of support to be provided by the government in the form of new policies and the public should give insight into sustainable development.

Kwakwa P (2020), examined the long-run effects of energy use, urbanization, and financial development on carbon dioxide emissions in Tunisia. The purpose of this paper was to fill the variance to analyze the causes which cause maximum destruction to the environment. The study concluded that urbanization on its own may be environmentally harmful, but the availability of a well-developed financial sector that is environmentally conscious in urban towns would be helpful to attain a cleaner environment. Also, there is a need to move toward environmentally friendly and renewable energy to reduce the adverse effect on the environment.

### **DISCUSSIONS:**

Above mentioned views discuss the impact of technology and its effect on the environment. Mostly they all discuss the policies of government and awareness programs. But there is a need on behalf of individuals to pay attention to the environment and protect it. Firms should also set up a separate department to keep an eye if it serves back to the environment or not.

### **CONCLUSION:**

Technology is an indicator that tells us about development. It should not be ignored but measures should be taken to preserve the environment with the advancement of technology. Every organization should focus on the establishment of separate cells in its

management system to keep an eye on the usage of natural resources and returns to the environment. Government should make strict policies and it should be obliged firms to follow them. Many awareness programs should be conducted to teach people to conserve the environment. Individuals should also get to know about the advantages of technology with the negative aspects also.

### **RECOMMENDATIONS:**

Now far everyone talks about the side effects of technology, but every coin has two effects. If there are bad effects there will be some good sides also. If used with proper care technology can result in a bloom in disguise. It can be done by having a separate cell in every organization and also by taking part in government awareness programs. Campaigns should be run. Substitutes for fossil fuels should be developed and used.

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