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A Study on Environmental Accounting with Special Reference to Environmental Cost Management

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Abstract

The main aim of this research is to study the meaning of environment accounting and understand the importance of environmental cost management. Environmental accounting, often known as green accounting, is a change to the System of National Accounts that takes into account the usage or depletion of natural resources. Environmental cost management allows your company to keep track of the costs associated with the environmental effect of its operations. Controlling environmental costs and encouraging environmental benefits will increase your company's overall profitability. Empirical research is used for the purpose of the study. Online survey method is used to collect the samples. Samples are collected based on convenient sampling. The sample size of this paper is 200. Statistics used in the research are clustered bar graphs. The information was collected from secondary sources like journals, articles, books and so on. The results reveal that most of the respondents are aware that the deterioration of natural assets like land, water and ecosystems is caused due to economic activities and environmental cost management is important in protecting the environment.

Keywords

Environment, cost management, sustainability, conservation, accounting

INTRODUCTION

Environmental accounting, often known as green accounting, is a change to the System of National Accounts that takes into account the usage or depletion of natural resources. Environmental cost management allows your company to keep track of the costs associated with the environmental effect of its operations. Your company can impact the environment in a variety of ways, including air pollution, manufacturing emissions, wetland degradation, and rubbish disposal. Environmental costs encompass current and future environmental effects that your company is responsible for, as well as labour costs associated with accounting for environmental costs. Controlling environmental costs and encouraging environmental benefits will increase your company's overall profitability. The term "environment" was first used in a biological sense to refer to the natural surroundings of living souls, and then in a geographic sense to refer to a space

inhabited and impacted by man. Natural assets are assets that are found in the natural world. Biological assets (produced or wild), land and water areas with ecosystems, subsurface assets, and air are among them. Integrating all of your accounting activities is the greatest way to control environmental impact expenses. The ministry of business affairs is amending its corporate social responsibility (CSR) rules from last year to include more precise environmental sustainability guidelines. The new rules are aimed at reducing wasteful use of natural resources and ensuring that industrial waste is treated in a scientific manner. While the old guidelines encouraged businesses to be environmentally sensitive, they left it up to them to take action. It failed to establish a clear framework for compliance, causing businesses to take insufficient measures. The difference in accounting development over time is explained by four environmental factors. The economic climate, the political environment, the development of the stock market, and the privatisation of state-owned enterprises are all aspects to consider. The trend in cost accounting toward tying costs to material flows and the environmental consequences of those flows necessitates indicators of integrated economic and environmental performance measurement, or eco-efficiency performance measurement. Environmental accounting, as defined by these principles, has three main components: environmental conservation costs (monetary value), environmental conservation benefits (physical units), and the economic benefit connected with environmental conservation actions (monetary value). The study has been compared with Norway and Netherlands

Objectives:

- To understand the meaning of environmental cost management
- To study the role of environmental accounting in business activities
- To learn the importance of integrated accounting activities in controlling environmental impact costs
- To understand the effects of environmental damage

REVIEW OF LITERATURE

Jean Francois Henri et al (2016), The writers highlight contemporary strategic cost management advancements. The primary goal of this paper is to look at how strategic cost management affects environmental accounting and financial performance. **Marc J Epstein (1996),** The topic of incorporating environmental consequences into product costing and cost management procedures in organisations is discussed by the author. It looks at methods for determining and tracking current environmental costs from both current and previous manufacturing. **Robert Handfield et al (2005),** The concept of integrating environmental management and supply chain strategies is delayed by the author. The framework is intended to provide suggestions for how businesses can improve their present supply chain procedures in order to successfully integrate environmental concerns into their supply chain strategy. **William G Russell et al (1994),** The writers provide a thorough examination of the topic of A multidisciplinary team effort is required to implement a complete system for recognising and managing environmental expenses. Product selection, design and price, capital budgeting, and future strategic direction are all influenced by environmental costs. Real cost statistics are essential for making educated and relevant managerial decisions about environmental programmes. **Jinman Wang et al (2018),** The writers discuss the environmental consequences of coal-fired electricity generation. They must take effective measures to limit pollution emissions and control energy consumption. Environmental cost management will assist in this endeavour. **Christine Jasch (2006),** According to the strategy devised for the United Nations Division of Sustainable Development, the author presents definitions for environmental accounting and environmental management accounting in the article. The challenges of acquiring data from various information systems are addressed, as well as strategies for improving data consistency in an organisation. **Royce D. Burnett (2008),** This study examines the relationship between environmental performance and manufacturing efficiency in the electrical industry in the United States before and after the 1990 Clean Air Act amendment. Using

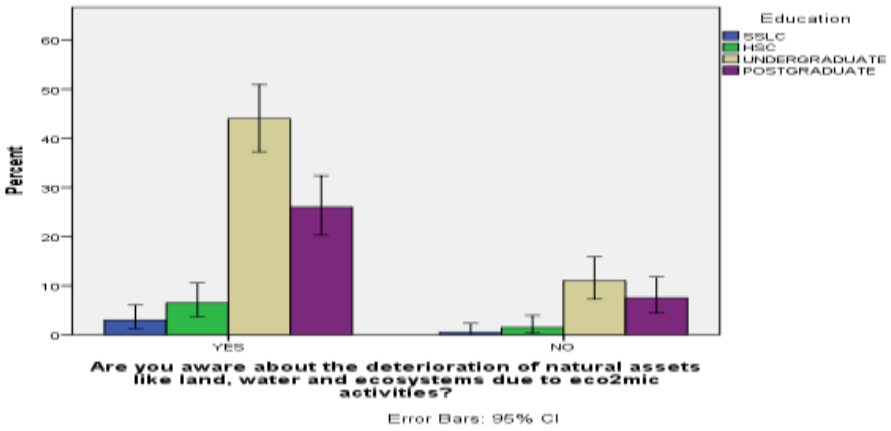
data packaging analysis (DEA) , cross-sectional tests show that less polluting plants are more efficient than more polluting ones. **Petra Christmann (2017)**, Research on the business impact of environmental management "best practices" that enable businesses to both protect the environment and reduce costs, has so far overlooked the role of environmental management. existing resources and capabilities of the company. Based on an enterprise resource-based perspective, this study analyzes whether additional assets are needed to gain cost advantage through the implementation of best practices. **Mahesh C Gupta (1995),** Recently, businesses have faced a number of global environmental challenges such as global warming, acid rain, natural resource depletion, waste management, green consumerism and pollution prevention. infected. There is increasing pressure to provide environmentally compatible products and services. **Ki Hoon Lee (2011),** The document provides analysis of the current state of environmental management and/or environmental cost accounting at the industry level. The author explores the breadth of management research in the areas of corporate sustainability management and environmental management accounting. The study uses a survey method to determine the drivers of environmental cost accounting adoption and its guidelines in organizations in the context of the Korean manufacturing industry. **Scott A. Field (2004),** This result holds true in most cases when the value of the species significantly exceeds its recovery costs. For species of lower economic value, we show that the usual α level of 0.05 rarely reaches the optimal decision-making threshold. This analysis supports calls to reverse the statistical "burden of proof" in environmental decision-making when the cost of Type II errors is relatively high. **Xiaomei (2004)**, The EMA's main problems relate to the specification of environmental accounting information, the allocation of environmental costs, legal issues, and the lack of environmental accounting standards. Of all the existing policy tools that governments can use, the paper argues that regulatory or market-sensitive tools would be more suitable for China. The Chinese government can also order companies to set up environmental reports and environmental audit systems. **Nicole Darnall (2006),** This study explores why some facilities incur higher costs when adopting an environmental management system (EMS) and why costs vary between three different ownership structures. Thus, the development of an organization's capacity and resources seems to be a function of both the operating factors of the organization and the institutional context of these decisions. **Gerald Rebtizer (1999),** Supply chain management (SCM) should be seen as an element in the broader context of life cycle management (LCM) and sustainability. These two holistic approaches provide the possibility of applying a systems approach to a company's operations. Following this philosophy, the concept of Life Cycle Cost (LCC) to estimate the total costs associated with the production, use and disposal of a product or service is introduced. **Mark P. Sharfman (2008),** The results offer an alternative view of the relationship between economic performance and the environment, which has been dominated by the idea that improved economic performance stems from the use of better resources. Companies also benefit from better environmental risk management through the reduction in the cost of equity, the shift from equity to debt financing, and the higher tax advantages that come with the possibility of increasing debt. These results help build a better theory of the outcomes of strategic improvements in environmental risk management. **Dana R. Hayworth (2008),** indeed, these are just some of the questions business owners ask themselves when participating in a large-scale Superfund site or simply cleaning up a leaking underground storage tank. The costs associated with cleaning operations increase exponentially when the process is slow. However, equipped with an environmental cost management plan, companies can control and manage their costs while increasing their profits. **Patrick de beer (2007),** Environmental accounting helps to express environmental and social liabilities in terms of environmental costs. While environmental accounting systems have become part of industrial decision-making in first world countries, there is a lack of similar systems in South Africa. **Roger L. Burritt (2008),** this article develops a comprehensive framework for environmental management accounting (EMA) that links business actors and EMA tools. The proposed framework provides a structure for managers to understand and evaluate the wide variety of

environmental management accounting tools that have been developed to date, with the aim of encouraging their adoption. **Tobias Schoenherr (2012),** this paper studies the influence of corporate sustainability on the operations of manufacturing plants. In the three pillars of sustainability including environmental, social and economic sustainability and corporate foresight, we focus on the environmental component. More specifically, based on our argument from a resource-based business perspective, we hypothesize the impact of environmental management on factory operations. **C. Hicks (2007),** Cleaner Production (CP) as a strategy to reduce negative impacts on the environment throughout the production process in order to avoid and reduce pollution at the source and increase the competitiveness of companies. Since setting a goal of quadrupling China's gross domestic product between 2000 and 2020, while improving environmental performance and maintaining social stability, the "win-win" concepts " as CP'' plays an increasingly important role in the country's development plans.

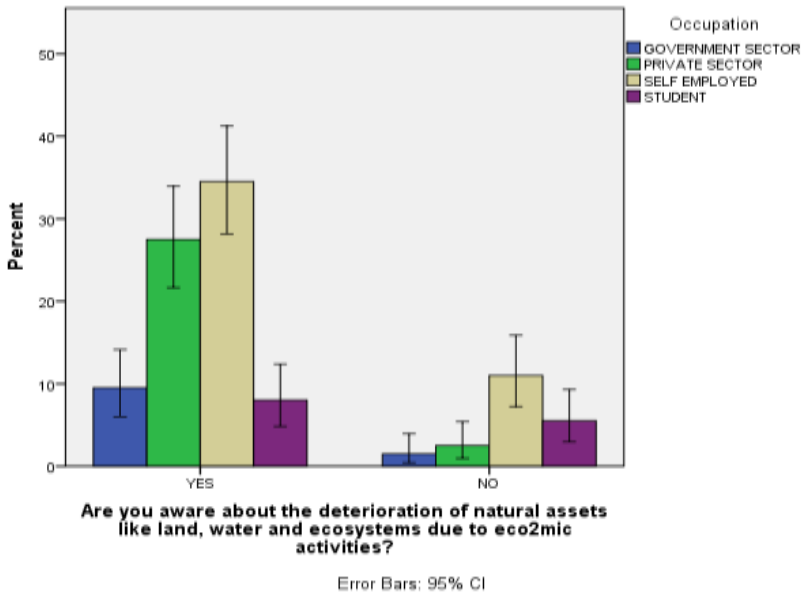
METHODOLOGY

Empirical research is used for the purpose of the study. Online survey method is used to collect the samples. Samples are collected based on convenient sampling. The sample size of this paper is 200. Independent variables are age, educational qualification, occupation, gender and monthly income. Dependent variables are awareness about the deterioration of natural assets like land, water and ecosystems due to economic activities, the main environmental factor which influences accounting, The main aim of environment cost management is to prevent environment damage, major issues of environmental cost accounting and importance of environmental cost management in protecting the environment. Statistics used in the research are clustered bar graphs. The information was collected from secondary sources like journals, articles, books and so on.

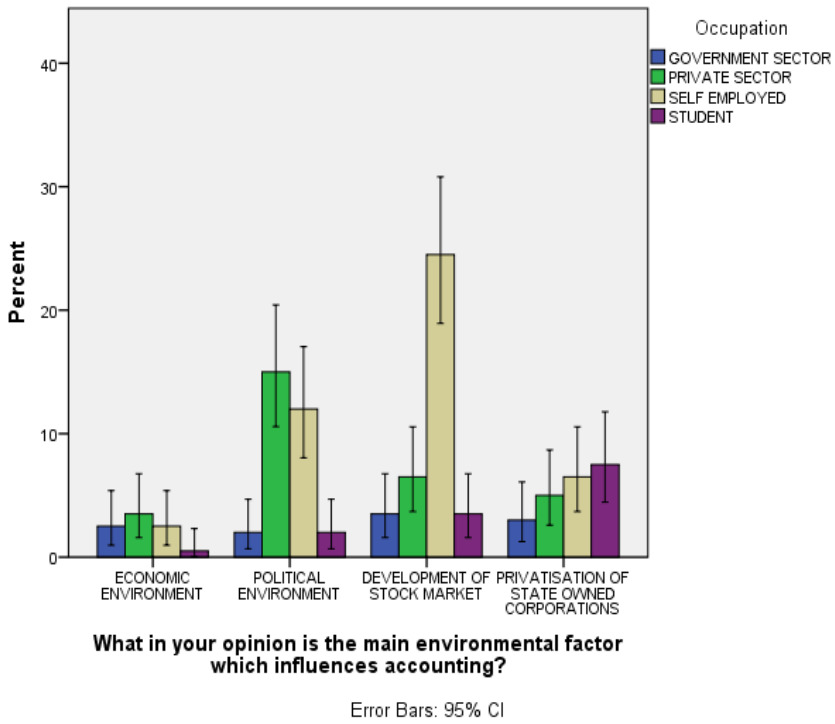
Analysis:



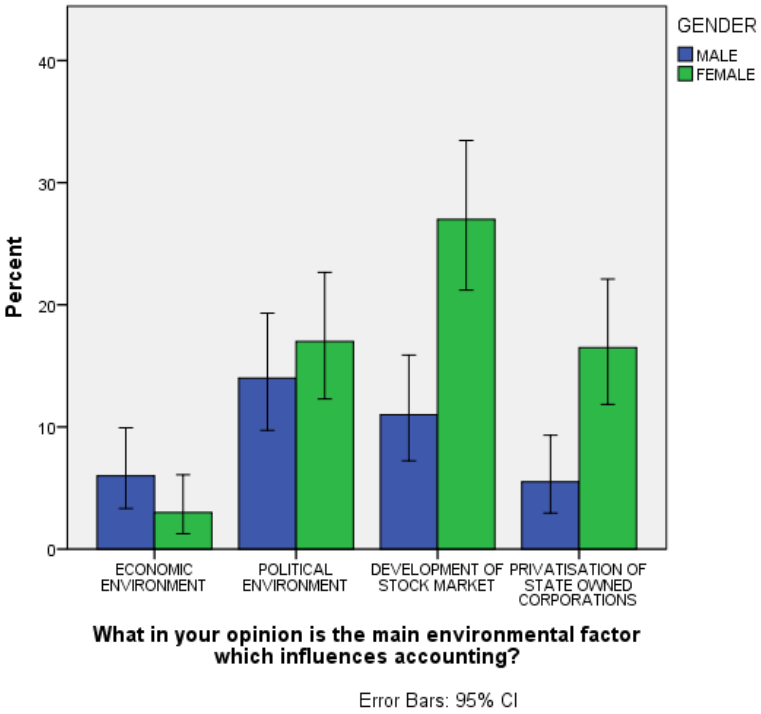
LEGEND: Figure 1 shows the educational qualification distribution with respect to opinion on the awareness of deterioration of natural assets like land, water and ecosystems due to economic activities



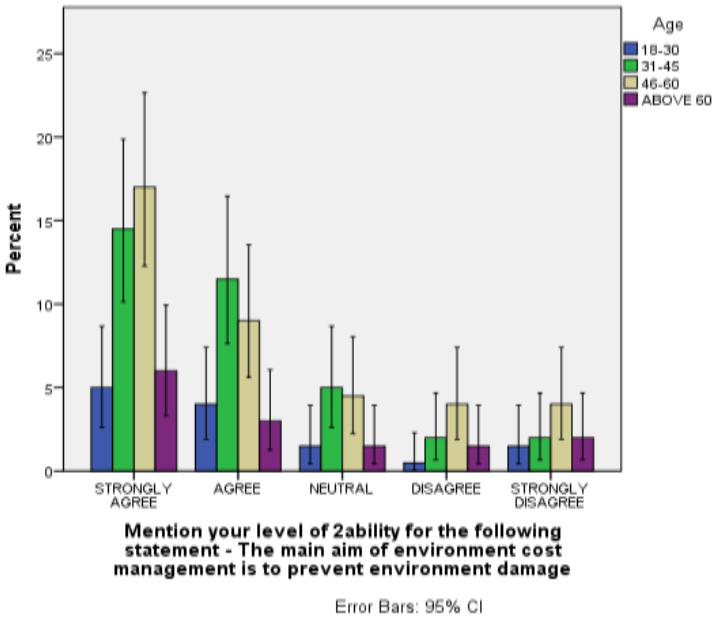
LEGEND: Figure 2 shows the occupation distribution with respect to opinion on the awareness of deterioration of natural assets like land, water and ecosystems due to economic activities



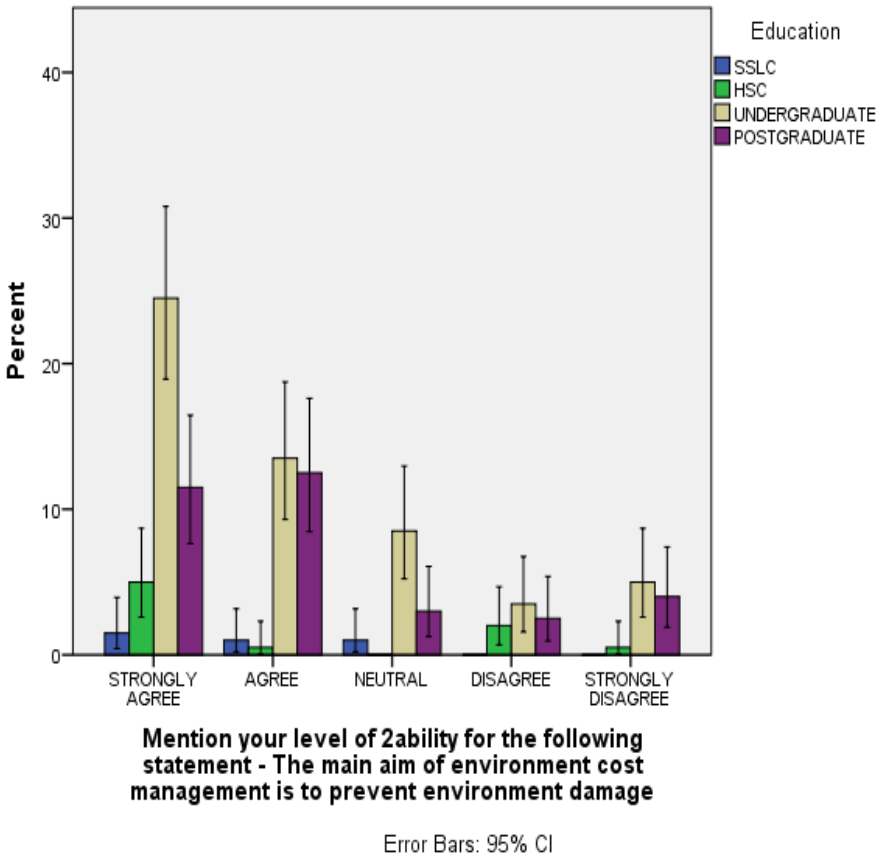
LEGEND: Figure 3 shows the occupation distribution with respect to opinion on the main environmental factor which influences accounting



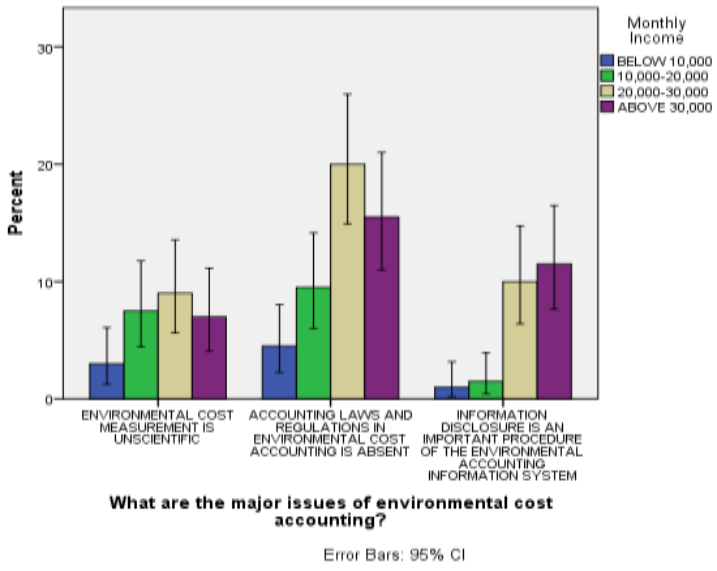
LEGEND: Figure 4 shows the gender distribution with respect to opinion on the main environmental factor which influences accounting



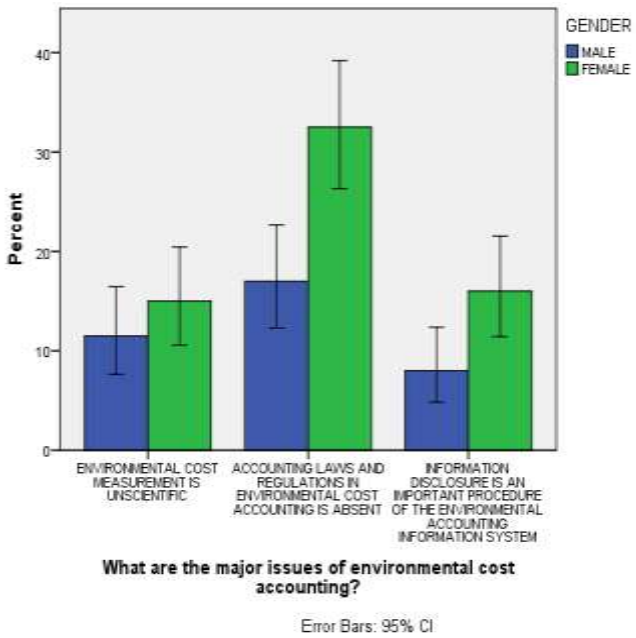
LEGEND: Figure 5 shows the age distribution with respect to agreeability on that statement- the main aim of environmental cost management is to prevent environmental damage



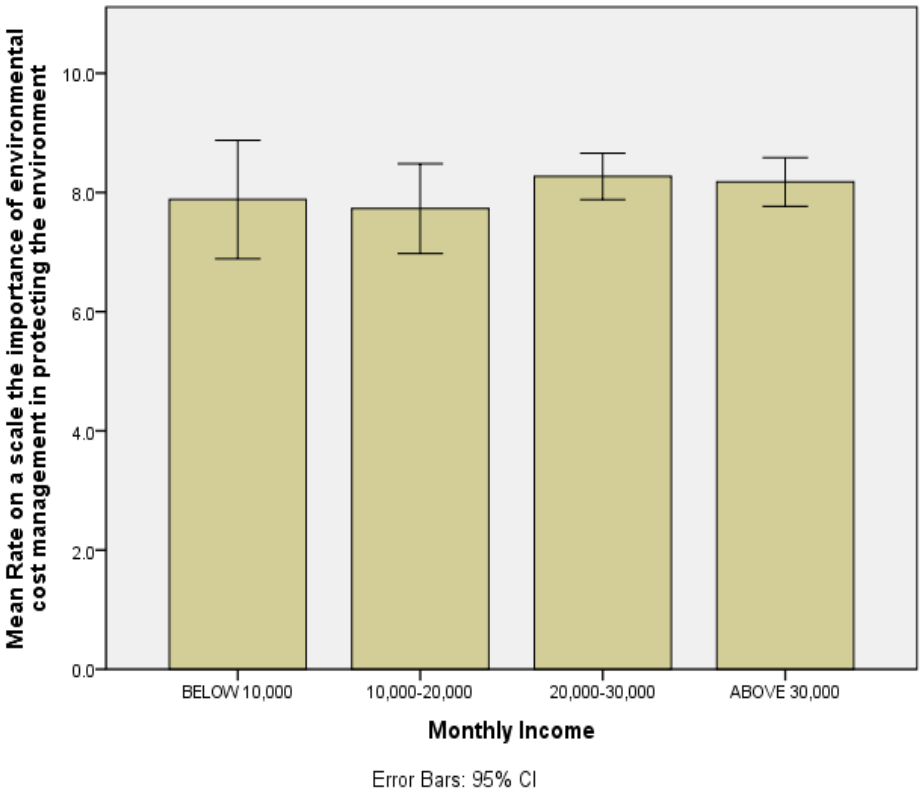
LEGEND: Figure 6 shows the educational qualification distribution with respect to agreeability on that statement- the main aim of environmental cost management is to prevent environmental damage



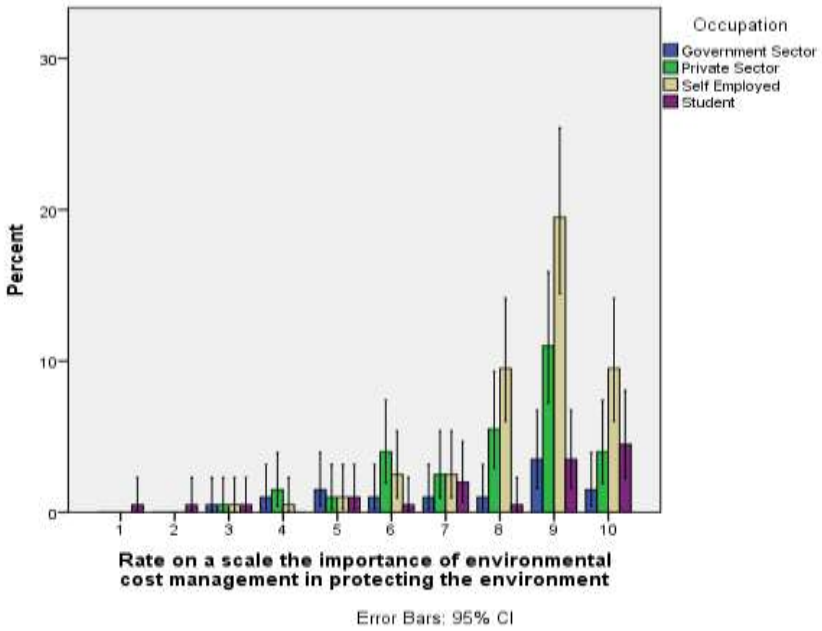
LEGEND: Figure 7 shows the monthly income distribution with respect to opinion on the major issues of environmental cost accounting



LEGEND: Figure 8 shows the gender distribution with respect to opinion on the major issues of environmental cost accounting



LEGEND: Figure 9 shows the monthly income distribution with respect to opinion on importance of environmental cost management in protecting the environment



LEGEND: Figure 10 shows the occupation distribution with respect to opinion on importance of environmental cost management in protecting the environment

RESULTS

From figure 1, we can infer that most of the undergraduate students are aware that the deterioration of natural assets like land, water and ecosystems is caused due to economic activities
From figure 2, we can infer that those working in the private sector are aware that the deterioration of natural assets like land, water and ecosystems is caused due to economic activities
From figure 3, we can infer that most of the self employed individuals have said that development of stock market is the main environmental factor which influences accounting
From figure 4, we can infer that most of the female respondents have said that development of stock market is the main environmental factor which influences accounting
From figure 5, we can infer that those most of the respondents belonging to the age group 46-60 years have strongly agreed to the statement - the main aim of environmental cost management is to prevent environmental damage
From figure 6, we can infer that those most of the undergraduate students have strongly agreed to the statement - the main aim of environmental cost management is to prevent environmental damage
From figure 7, we can infer that most of the respondents belonging 20,000☐ -30,000☐ income group have said that the major issue of cost accounting is that accounting laws and regulations in environmental cost accounting is absent
From figure 8, we can infer that most of the female respondents have said that the major issue of cost accounting is that accounting laws and regulations in environmental cost accounting is absent
From figure 9, we can infer that most of the respondents belonging to the 20,000☐ - 30,000☐ income group have agreed that environmental cost management is important in protecting the environment.
From figure 10, we can infer that most of the self employed individuals have agreed that environmental cost management is important in protecting the environment.

DISCUSSION

From figures 1 and 2, we can infer that most of the undergraduate students and those working in the private sector are aware that the deterioration of natural assets like land, water and ecosystems is caused due to economic activities. Groundwater depletion, deforestation, mining for fossil fuels and minerals, pollution or contamination of resources, slash-and-burn farming methods, soil erosion, and overconsumption, excessive or wasteful use of resources are among the most well-known examples of resource depletion. Natural resources have a double-edged influence on economic growth in that increasing their intensity of usage increases production while also increasing the rate of depletion. Natural resources are an important component of the production process that drives economic growth.
From figures 3 and 4, we can infer that most of the self employed individuals and female respondents have said that development of the stock market is the main environmental factor which influences accounting. A country's financial reporting is influenced by the extent of development of capital markets, in addition to the mode of funding. To summarise, in established securities markets, new and more sophisticated financial instruments emerge that must be covered and regulated in terms of accounting, resulting in changes to the contents of financial reports.
From figures 5 and 6, we can infer that most of the respondents belonging to the age group 46-60 years and undergraduate students have strongly agreed to the statement - the main aim of environmental cost management is to prevent environmental damage.
Environmental cost management allows your organisation to keep track of the costs associated with its operations' environmental impact. Environmental expenses include personnel costs connected with accounting for environmental costs, as well as current and future environmental problems your organisation is accountable for. Controlling environmental costs and promoting environmental advantages will boost the overall profitability of your company.
From figures 7 and 8, we can infer that most of the respondents belonging to the 20,000□ -30,000□ income group and female respondents have said that the major issue of cost accounting is that accounting laws and regulations in environmental cost accounting are absent. Cost involvement, a lack of experienced staff, a lack of clear norms for environmental accounting, an inadequate environmental accounting standard, low acceptance of environmental accounting, and a lack of specified environmental accounting principles are among the perceived problems.
From figures 9 and 10, we can infer that most of the respondents belonging to the 20,000□ -30,000□ income group and self employed individuals have agreed that environmental cost management is important in protecting the environment. The Environmental Protection Agency of the United States gives guidance on how to put up an Environmental Management System. Environmental damage can be avoided by training everyone in the firm on how to execute their jobs without causing harm to the environment. Create policies that spell out how you expect the task to be completed while also conserving the environment. Controlling environmental costs and promoting environmental advantages will boost the overall profitability of your company.

Limitation:
The main limitation of my study is the sample frame, since I had used an online survey method to collect the responses. Since environmental cost accounting is a subject which is related to commerce background, respondents were not able to give a clear outlook to the questions posed to them.

Suggestion:
The suggestion of the researcher is that every organisation and company must implement the concept of environment cost management techniques. Environmental cost management allows your organisation to keep track of the costs associated with its operations' environmental impact. Controlling environmental costs and promoting environmental advantages will boost the overall profitability of your company.

CONCLUSION

Environmental accounting, often known as green accounting, is a change to the System of National Accounts that takes into account the usage or depletion of natural resources. Environmental cost management allows your company to keep track of the costs associated with the environmental effect of its operations. From the above analysis, it is very much taken into consideration of the opinion from different segments of the society and results from observing the age, occupation, educational qualification, occupation and monthly income reveal that most of the undergraduate students and those working in the private sector are aware that the deterioration of natural assets like land, water and ecosystems is caused due to economic activities, most of the self employed individuals and female respondents have said that development of the stock market is the main environmental factor which influences accounting, most of the respondents belonging to the age group 46-60 years and undergraduate students have strongly agreed to the statement - the main aim of environmental cost management is to prevent environmental damage, most of the respondents belonging to the 20,000☐ -30,000☐ income group and female respondents have said that the major issue of cost accounting is that accounting laws and regulations in environmental cost accounting are absent and most of the respondents belonging to the 20,000☐ -30,000☐ income group and self employed individuals have agreed that environmental cost management is important in protecting the environment.

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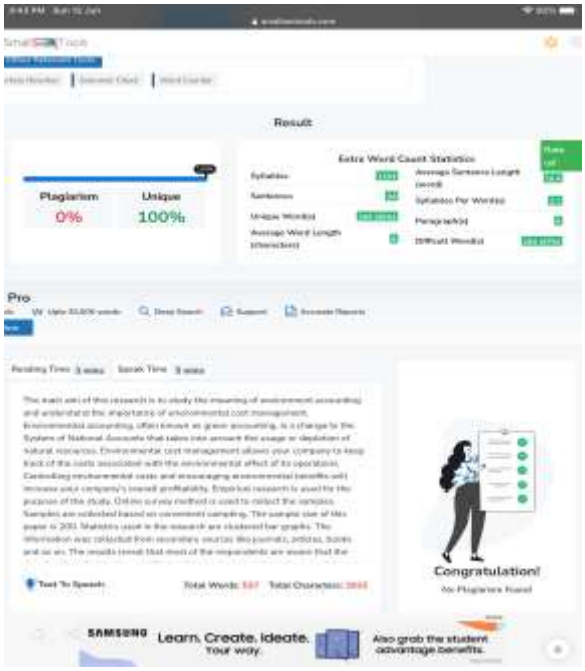

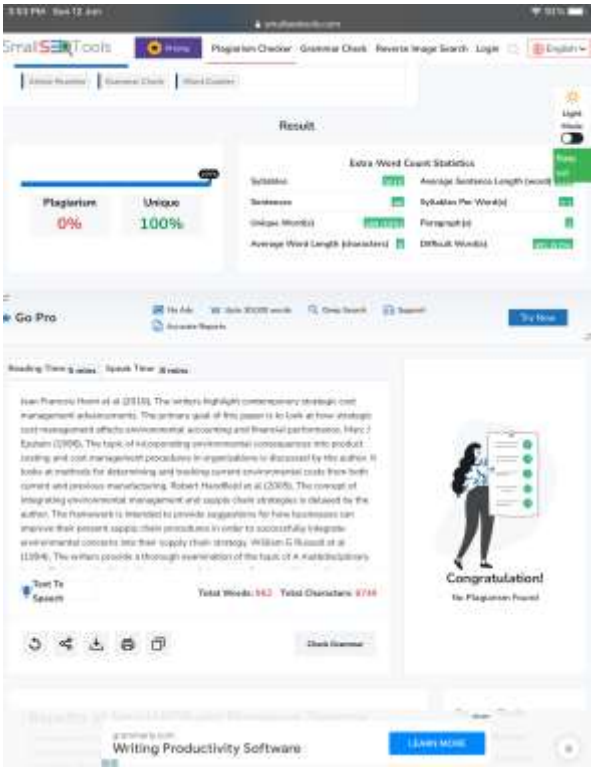
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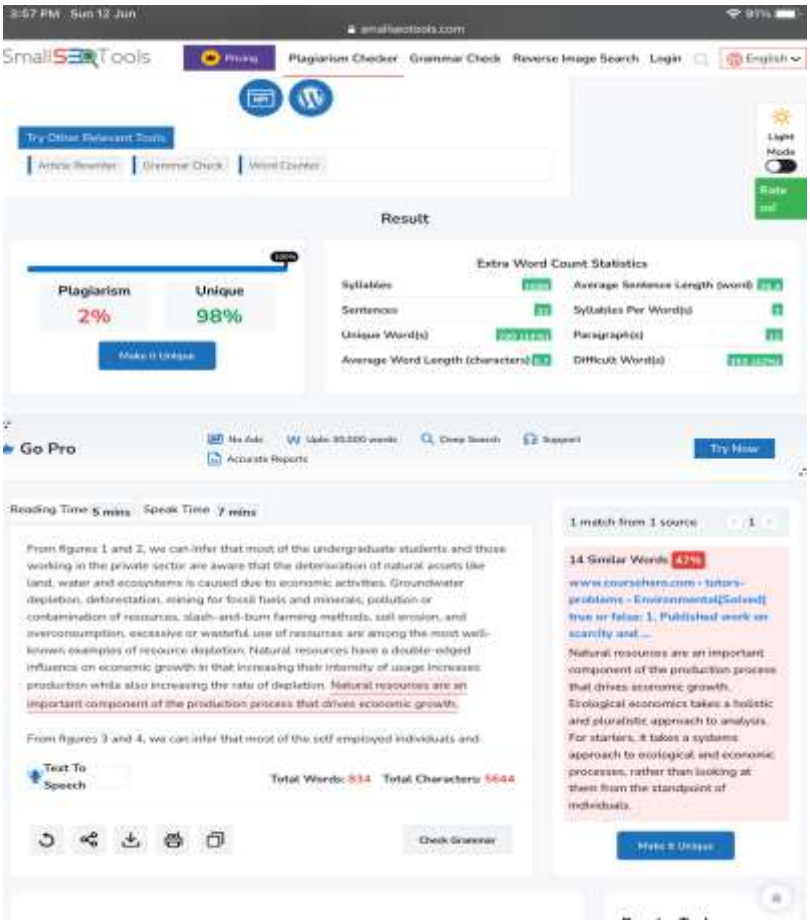
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