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## The Impact of Green Activity-Based Costing in Reducing Costs in the Oil Refinery in Southern Iraq

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### Abstract

*Because of the increasing phenomenon of global warming and environmental pollution and a large number of international and local pressures to pay attention to environmental issues and for competitive purposes, the oil refinery in southern Iraq suffers from a problem in increasing the volume of pollution it causes, which required attention to measure the size and cost of this pollution by determining and measuring environmental costs. On the other hand, the refinery uses a traditional costing system. Accordingly, this study came to solve this problem by applying costing technology based on green activity and studying the effects of this technology in reducing the costs of the refinery, including environmental ones, to reduce the negative environmental impact of the refinery, Where the GABC technology is one of the modern management accounting techniques and one of the green accounting tools that work to identify green activities and allocate indirect costs, including environmental ones. This technology helps managers in the future to build a green decision based on the information it provides to form the best combination of environmentally friendly products at the lowest costs with Preserving environmental resources, i.e., the optimal use of them, reviewing the production processes and activities of the refinery, and making them environmentally friendly. The applied results showed a significant impact of costing technology based on green activity in reducing refinery costs by Determining and measuring environmental costs and carbon emissions, in addition to the fair and more accurate allocation of indirect costs, including environmental costs.*

**Keywords:** Green Activity-Based Costs, Green activities, Cost reduction.

### Introduction

195 countries signed the Paris Agreement in December 2015 to solve the problem of environmental climate change because they believe that such agreements will significantly reduce the risks and impacts of climate change and achieve the goal of making financial flows consistent with the path of reducing Gas emission (Unfccc, 2016; Aslan & Batmaz, 2022). Misusing available resources affects the generation of abnormal weather and global warming, and reducing Gas emission is the goal of every country (Tsai, 2018). The solution to the pollution problem depends on a combination of pollution prevention and environmental management techniques, which are two keys to achieving environmental protection and reducing costs (Hsieh et al., 2020), in addition to the use of modern management accounting techniques that provide management with the necessary information to achieve these goals

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