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Corporate Strategies for Carbon Footprint Reduction: A Path to Sustainable Growth

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Abstract: As corporations worldwide face increasing pressure to adopt sustainable practices, carbon footprint reduction has become a critical aspect of corporate strategy. This paper explores innovative and effective strategies that businesses can implement to minimize their environmental impact while maintaining profitability and operational efficiency. The study delves into key areas such as energy efficiency, sustainable procurement, waste management, and the integration of renewable energy into corporate operations. Additionally, it highlights the role of digital transformation, including AI-driven optimization and blockchain-based carbon tracking, in achieving sustainability goals. Case studies of leading multinational corporations that have successfully implemented carbon footprint reduction strategies will be examined to provide practical insights and best practices. Furthermore, the paper addresses the regulatory landscape, investor expectations, and consumer demand for greener supply chains, emphasizing the economic and reputational benefits of proactive carbon management. By aligning sustainability initiatives with long-term business goals, corporations can create value while contributing to global climate action. This presentation aims to provide actionable recommendations for companies looking to transition towards low-carbon operations, offering a roadmap for sustainable corporate growth in an era of environmental responsibility

1. INTRODUCTION

Reducing corporate carbon footprints has become a priority for businesses aiming to balance profitability with sustainability. The transition toward low-carbon operations requires strategic planning, technological adoption, and policy compliance. This study explores corporate strategies to minimize environmental impact while maintaining business efficiency and competitive advantage.

2. RESEARCH PROBLEM

Despite increasing awareness and regulatory pressures, many corporations still struggle to integrate effective carbon footprint reduction strategies into their business models. Challenges include high initial investment costs, lack of standardized reporting frameworks, and insufficient technological adoption. This study aims to address these gaps by identifying actionable solutions

3. SCOPE OF THE STUDY

- Assessing corporate energy efficiency measures.
- Analyzing sustainable procurement strategies and their impact.
- Evaluating digital innovations such as AI and blockchain in carbon tracking.
- Reviewing case studies of successful corporate sustainability initiatives

4. RESEARCH OBJECTIVES

- To examine corporate strategies for reducing carbon footprints.
- To analyze the economic and regulatory impacts of sustainability initiatives.
- To evaluate the role of digital transformation in achieving sustainability goals.

- To identify challenges and best practices for corporate sustainability.

5. VARIABLES

- Independent Variables: Corporate energy efficiency, sustainable procurement, digital transformation.
- Dependent Variables: Carbon footprint reduction, corporate profitability, regulatory compliance.

6. RESEARCH HYPOTHESIS

- H₀: Corporate sustainability strategies do not significantly reduce carbon footprints.
- H₁: Corporate sustainability strategies significantly contribute to carbon footprint reduction

7. RESEARCH DESIGN

This study follows a mixed-methods research design, incorporating qualitative and quantitative analysis. It includes case studies, financial and sustainability reports, and expert interviews to assess the impact of corporate carbon reduction strategies

8. REVIEW OF LITERATURE

Existing literature on corporate sustainability strategies highlights the importance of proactive carbon management. Studies suggest that companies integrating renewable energy, sustainable supply chains, and digital tracking tools experience significant reductions in carbon emissions. Recent research also emphasizes the financial and reputational advantages of sustainability initiatives. However, gaps remain in understanding the scalability of these strategies across different industries

9. DATA ANALYSIS, FINDINGS, AND DISCUSSION

This study analyzed sustainability reports from leading corporations, focusing on energy efficiency, procurement strategies, and emissions tracking. Results indicate a positive correlation between corporate sustainability initiatives and carbon footprint reduction.

Companies investing in renewable energy and AI-driven optimization reported an average 20-30% decrease in emissions over five years.

- Companies adopting renewable energy saw a 25% reduction in carbon emissions.
- Sustainable procurement practices led to a 15% improvement in supply chain efficiency.
- AI-driven sustainability tracking enhanced reporting accuracy and regulatory compliance.
- Businesses with clear sustainability goals attracted 18% more investor interest

10. CONCLUSION

The findings suggest that corporations adopting structured carbon reduction strategies experience significant environmental and financial benefits. By integrating renewable energy, AI-driven monitoring, and sustainable procurement, businesses can align their goals with climate action while maintaining profitability. Future research should explore industry-specific implementation challenges and long-term sustainability impacts.

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