



Green Finance, Scientific Innovation and Sustainable Development Goals: Pathways to a Resilient Future

Editors

Dr. G.Purushothaman
Dr. J.Chithralega
Mr. G.Magesh
Ms. C.Snega



2026



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CONVENOR'S MESSAGE



It gives me immense pleasure to present the proceedings of the International Conference (*NEXGEN 2K26*), organized by the Department of Commerce (Accounting & Finance), S.A. College of Arts & Science, Chennai, held on 13 March 2026 in a hybrid mode, enabling both in-person and virtual participation. The overwhelming response from academicians, research scholars, industry experts, and students reflects the significance and relevance of the conference theme, ***“Green Finance, Scientific Innovation and Sustainable Development Goals: Pathway to a Resilient Future.”***

In today's rapidly evolving global environment, sustainability has emerged as a central concern for governments, businesses, and society at large. The integration of green finance with scientific innovation offers promising pathways to achieve the United Nations Sustainable Development Goals (SDGs). This conference served as a dynamic platform to exchange knowledge, share innovative research, and discuss strategies that promote sustainable economic growth while addressing pressing environmental and social challenges.

The technical sessions featured insightful keynote addresses, thought-provoking paper presentations, and meaningful discussions that enriched the academic experience of all participants. The contributions of distinguished speakers and researchers have significantly added value to this conference by providing diverse perspectives on emerging trends in green finance, technological advancements, and sustainability practices.

I sincerely express my gratitude to the esteemed Chief Guest, keynote speakers, session chairs, reviewers, and participants for their valuable contributions. I also extend my heartfelt appreciation to the Correspondent of S.A. College of Arts & Science for their continuous support and encouragement in making this event a grand success. I acknowledge the dedicated efforts of the Director, Principal, IQAC Coordinator, organizing committee, faculty members, and student volunteers whose hard work and commitment ensured the smooth conduct of the conference.

I am confident that the research papers included in this proceeding will serve as a valuable resource for scholars and practitioners, and will inspire further research and innovation in the fields of green finance and sustainable development.

I look forward to many more such academic endeavours that contribute to knowledge dissemination and global sustainability.

Convenor

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GREEN FINANCE, SCIENTIFIC INNOVATION AND SUSTAINABLE DEVELOPMENT GOALS: PATHWAYS TO A RESILIENT – AT A GLANCE

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ABSTRACT

The growing climate crisis, environmental degradation, and socio-economic inequalities demand an integrated approach that aligns financial systems, scientific innovation, and sustainable development priorities. Green finance has emerged as a transformative mechanism that mobilizes capital towards environmentally responsible investments, while scientific innovation accelerates the development of clean technologies and sustainable solutions. This paper provides an overview of how green finance and scientific innovation collectively contribute to achieving the United Nations Sustainable Development Goals (SDGs), particularly in areas such as climate action, clean energy, sustainable infrastructure, and inclusive economic growth. The study highlights the interlinkages between policy frameworks, financial instruments, technological advancements, and institutional support systems that foster resilience. It further examines opportunities, challenges, and strategic pathways for strengthening sustainable financial ecosystems in emerging economies. The paper concludes that coordinated action among governments, financial institutions, research bodies, and industry stakeholders is essential to build a resilient, low-carbon, and inclusive future.

Keywords: Green Finance, Scientific Innovation, Sustainable Development Goals, Climate Resilience, Sustainable Investment, ESG, Emerging Economies.

“Green Finance, Scientific Innovation and Sustainable Development Goals: Pathways to a Resilient Future” (IC-GFSI-SDG- NEXGEN 2026)

PERFORMANCE APPRAISAL IN THE BANKING SECTOR: ALIGNING EMPLOYEE PERFORMANCE WITH SUSTAINABLE DEVELOPMENT GOALS

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Abstract

Performance appraisal in the banking sector plays a vital role in improving organizational efficiency, employee productivity, and service quality. In recent years, banks have increasingly aligned their performance evaluation systems with the principles of sustainable development to support the United Nations Sustainable Development Goals (SDGs). This study examines the relationship between banking performance appraisal systems and the achievement of SDGs, particularly SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), and SDG 10 (Reduced Inequalities). The research explores how modern appraisal practices—such as competency-based evaluation, digital performance monitoring, and sustainability-linked performance indicators—encourage employees to adopt responsible banking practices. By integrating environmental, social, and governance (ESG) criteria into appraisal frameworks, banks can promote ethical lending, financial inclusion, and sustainable investment decisions. The study also highlights the role of performance appraisal in motivating employees to enhance customer service, support green banking initiatives, and strengthen financial transparency. The findings suggest that incorporating sustainability indicators into performance appraisal systems can significantly improve organizational accountability and contribute to broader sustainable development objectives. Thus, banking institutions can serve as key drivers of sustainable economic growth while simultaneously improving employee performance and institutional effectiveness.

Keywords: Banking Performance, Sustainable Development Goals, ESG, Green Banking, Financial Inclusion.

“Green Finance, Scientific Innovation and Sustainable Development Goals: Pathways to a Resilient Future” (IC-GFSI-SDG- NEXGEN 2026)

GREEN RECRUITMENT AND SELECTION STRATEGY A SUSTAINABLE APPROACH TO HUMAN RESOURCE MANAGEMENT

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ABSTRACT

In the era of climate change and environmental consciousness, organizations are increasingly integrating sustainability into their core business strategies. Human Resource Management (HRM) plays a crucial role in promoting environmental responsibility through green recruitment and selection practices. Green recruitment refers to attracting environmentally conscious candidates, while green selection involves choosing individuals who align with the organization’s sustainability values. This paper explores the concept, strategies, benefits, challenges, and future implications of green recruitment and selection. It proposes a conceptual framework linking green HR practices with organizational sustainability outcomes. The study emphasizes that integrating environmental criteria into hiring processes not only enhances corporate reputation but also builds a workforce committed to sustainable development.

Keywords: Green HRM, Sustainable Recruitment, Environmental Management, Corporate Sustainability, Green Selection, ESG Strategy

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FINANCING SUSTAINABILITY: A STUDY ON GREEN VENTURE CAPITAL AND IMPACT INVESTING IN EMERGING ECONOMIES

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ABSTRACT

This study examines the role of green venture capital and impact investing in promoting sustainable development in emerging economies. A structured narrative literature review of Scopus and Web of Science publications between 2015 and 2025 was conducted. Using a systematic screening procedure, 120 studies were initially identified, and 30 key studies were included for detailed analysis. The findings suggest that green venture capital and impact investing significantly contribute to renewable energy development, climate innovation, and sustainable infrastructure financing. However, emerging economies face regulatory uncertainty, financial market constraints, and limited ESG data transparency. The study proposes policy recommendations for strengthening sustainable finance ecosystems.

Keywords: Green venture capital, impact investing, sustainable finance, ESG investing, emerging economies

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GREEN ENGAGEMENT AT WORK: DETERMINANTS AND OUTCOMES OF EMPLOYEE PARTICIPATION IN ENVIRONMENTAL INITIATIVES IN THE INDIAN POWER INDUSTRY

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ABSTRACT

The transition toward sustainable energy systems have significantly transformed the operational and strategic landscape of the Indian power industry. As regulatory pressures, decarbonization targets, and stakeholder expectations intensify, power generation and distribution organizations are increasingly embedding environmental sustainability into their corporate agendas. While technological advancements and regulatory compliance play a critical role, the success of environmental initiatives largely depends on employee-level engagement. Green engagement at work refers to the psychological and behavioral involvement of employees in environmental management practices, sustainability programs, and eco-friendly initiatives within organizations. Despite the growing prominence of Green Human Resource Management (GHRM) practices, empirical evidence explaining the determinants and outcomes of employee participation in environmental initiatives in the Indian power sector remains limited. This study addresses this gap by examining key organizational and individual drivers of green engagement and evaluating its performance-related and attitudinal outcomes. The primary objective of this study is to identify the determinants that influence employee participation in environmental initiatives within power generation and distribution companies in India. Specifically, the study examines the role of green leadership, perceived organizational support for the environment, environmental training, and pro-environmental values in predicting green engagement at work. A secondary objective is to assess the outcomes of green engagement, including enhanced organizational commitment, job satisfaction, innovative work behavior, and perceived environmental performance. The study seeks to contribute to the theoretical integration of engagement theory and sustainability management within the context of the Indian power industry.

The study adopts a quantitative research design using primary data collected through a structured questionnaire administered to employees working in public and private power utilities across India. A stratified random sampling technique was employed to ensure representation across generation, transmission, and distribution segments. The proposed sample size consists of approximately 350–400 respondents. Measurement scales were

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adapted from validated instruments in green HRM and organizational behavior literature. Data analysis is conducted using Structural Equation Modeling (SEM) to test hypothesized relationships among constructs. Reliability and validity are assessed through Cronbach's alpha, composite reliability, and confirmatory factor analysis. The model evaluates direct and mediating effects of green engagement between organizational drivers and performance outcomes. Preliminary findings indicate that green leadership and perceived organizational support for environmental sustainability significantly predict employee green engagement. Environmental training programs enhance employees' environmental competencies, thereby strengthening their participation in green initiatives. Pro-environmental values at the individual level also positively influence engagement behaviors. Furthermore, green engagement demonstrates a strong positive association with job satisfaction, organizational commitment, and innovative work behavior. Importantly, engaged employees contribute to improved environmental performance outcomes, such as energy conservation, waste reduction, and compliance with environmental standards. The mediating analysis suggests that green engagement acts as a critical mechanism linking organizational practices to sustainability outcomes. The study offers several theoretical, managerial, and policy implications. Theoretically, it extends engagement theory by contextualizing it within environmental sustainability and the energy sector. It also strengthens the empirical foundation of GHRM research in emerging economies. Managerially, the findings highlight the importance of cultivating green leadership behaviors and integrating sustainability into HR practices such as recruitment, training, performance appraisal, and rewards. Power sector managers should foster a supportive climate that encourages employee-driven environmental innovations. From a policy perspective, regulators and policymakers can design incentive frameworks that promote employee participation in sustainability initiatives as part of broader ESG compliance and energy transition strategies. This study contributes original empirical insights into the behavioral dimensions of sustainability within the Indian power industry. By examining both determinants and outcomes of green engagement through a comprehensive structural model, the research provides an integrated framework for understanding how employee participation can accelerate organizational environmental performance.

Keywords: Green Engagement, Environmental Initiatives, Indian Power Industry, Green HRM, Employee Participation

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IMPACT OF GREEN MARKETING PRACTICES ON BRAND IMAGE AND CONSUMER PURCHASE INTENTION: A STUDY WITH REFERENCE TO HIMALAYA WELLNESS

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ABSTRACT

The present study attempts to examine the impact of green marketing practices namely green product, green packaging, green promotion and green pricing on consumer purchase intention with special reference to Himalaya wellness. The main objective of the study is to assess the impact of green marketing practices on consumer purchase intention with reference to Himalaya wellness. This study follows a Descriptive and analytical research design to assess the impact of green marketing practices on Brand image and consumer purchase intention. A convenience sampling method was adopted. Primary data has been obtained from 300 respondents through a structured questionnaire. The collected data was analyzed and the results were interpreted using SPSS. The reliability of the scale was assessed using Cronbach's alpha, the result indicates Cronbach's alpha value of 0.858 for the 12-item scale, indicating good internal consistency and confirming that the instrument is reliable. The Findings of the study highlights that one-sample t-test results proves respondents strongly agree with the statement that Himalaya Wellness products are made using natural and herbal ingredients. The Multiple linear regression results indicate that Himalaya's Green packaging and Green promotion emerged as the strongest and most influential predictor of Purchase intention and Green pricing positively influences consumers' willingness to continue purchasing green products. Thus, proves that there is significant linear relationship between Green marketing practices and consumer Purchase intention. The study concludes that effective implementation of green marketing practices enhances consumers' purchase intention and strengthens brand credibility among the consumers.

Keywords: Green marketing practices, Green product, Green packaging, Green promotion, Green pricing, consumer purchase intention, Brand image, Himalaya wellness.

AI-BASED PLANT LEAF DISEASE DETECTION USING CONVOLUTIONAL NEURAL NETWORKS

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ABSTRACT

Plant diseases are among the major factors affecting plant health and productivity. Early detection of diseases plays a critical role in improving plant management and minimizing plant loss. Traditional disease identification methods rely on manual observation performed by experts, which is time consuming, subjective, and often unavailable in remote regions. Recent advancements in artificial intelligence and deep learning have enabled automated disease detection systems using image analysis techniques. This paper proposes an intelligent plant leaf disease detection system based on Convolutional Neural Networks (CNN). The proposed system analyzes plant leaf images to automatically detect disease patterns and classify plant health conditions. The architecture integrates image preprocessing, CNN-based feature extraction, disease classification, and prediction processing modules within a scalable system framework. The CNN model learns hierarchical visual features such as color patterns, lesion structures, and texture variations from plant leaf images without requiring manual feature engineering. A web-based interface allows users to upload leaf images for real-time disease detection. Experimental evaluation demonstrates that the proposed CNN model achieves higher classification accuracy compared to traditional machine learning techniques such as Support Vector Machines and Random Forest classifiers. Performance metrics including accuracy, precision, recall, response time, and system scalability are analyzed to evaluate system efficiency. The proposed framework contributes to the development of automated plant health monitoring systems and supports modern intelligent agriculture applications.

Keywords: Convolutional Neural Networks, Deep Learning, Image Processing, Computer Vision, Disease Detection, Artificial Intelligence, Smart Agriculture

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SUSTAINABLE INDUSTRIAL AUTOMATION: REDUCING MECHANICAL FATIGUE VIA AUTONOMOUS IOT LEVELING SYSTEMS

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ABSTRACT

In the contemporary industrial landscape, the requirement for absolute structural stability is a fundamental prerequisite for the operation of high-precision equipment. Whether in the context of mobile satellite communication terminals, medical imaging units, or heavy-duty logistics platforms, a minor inclination can result in significant data inaccuracies or mechanical failure. The Intelligent 4-Leg Stabilization Platform is an autonomous mechatronic solution designed to address these challenges. By leveraging the computational power of the Arduino UNO R4 Wi-Fi and the high-fidelity inertial sensing of the MPU-6500, the system identifies deviations from a "Hardcoded Zero" and executes corrective pulses to four 12V linear actuators. Furthermore, the system integrates an IoT layer using the ESP32 CrowPanel, allowing for remote, real-time telemetry monitoring via the ESP NOW protocol.

Keywords: Arduino UNO R4 Wi-Fi, MPU-6500, IoT Stabilization, ESP-NOW, Linear Actuators, Green Technology, Alpha-Filtering, 32-bit Mechatronics.

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POST PURCHASE DISSONANCE AMONG LAPTOP CONSUMERS IN CHENNAI CITY

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ABSTRACT

In this modern world, Electronic Gadgets plays a vital role in depletion of human efforts as well as depleting mental stress. Electronic Gadgets like Smart Phone, Smart Watches and Personal Computers are depleting the human efforts and by the same way Laptops are depleting lot of human works. Now a day, Laptops are considered as a basic needed gadget for every educated working person in the world. Peculiarly, Laptops are the precedence of any kind of consumers who have the intention to purchase a laptop. Every consumer has an expectation on the latest features available in the laptop and intention to buy a particular brand. Hence it is necessary for every brand to follow up their customer's needs and to bewitch the consumer's by their brand quality. The current study centralizes the dissonance of the consumer after purchasing the laptop. This study aims to investigate the post-purchase satisfaction and dissonance of laptop consumers in Chennai City. The study encompasses a compilation of primary and secondary data. A compilation of primary data obtained via direct questionnaires and secondary data sourced from prior research publications and websites was utilized for analysis, including percentage analysis of the respondents' demographic profiles and their levels of contentment and dissonance with laptop consumption.

Keywords: Dissonance, Laptop, Purchase, Consumers, Electronic Gadgets.

**DESIGN AND IMPLEMENTATION OF A REAL-TIME DISTRIBUTED
COMPUTER LAB MONITORING SYSTEM**

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ABSTRACT

Modern institutional computer laboratories face challenges such as uncontrolled resource consumption, unauthorized software usage, and lack of real-time administrative visibility. These issues often lead to performance degradation, network congestion, and system instability. Traditional centralized monitoring approaches introduce latency and increased server overhead, limiting scalability in large lab environments. This paper proposes a distributed monitoring framework termed Edge-Driven Adaptive Telemetry (EDAT) for real time laboratory resource supervision. The proposed system leverages edge-level data processing to reduce network load and improve anomaly detection efficiency. EDAT is experimentally evaluated against the conventional Centralized Polling Protocol (CPP). Results demonstrate that the proposed model achieves higher monitoring accuracy while reducing system latency and overhead. The framework enables early identification of abnormal resource patterns, thereby improving system reliability and operational continuity in institutional environments.

Keywords: Edge Computing, Distributed Monitoring, Telemetry Processing, Resource Utilization, Anomaly Detection, Network Performance Optimization, Computer Laboratory Management, EDAT, Centralized Polling Protocol (CPP).

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GREEN BANKING - A TOOL FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

Natural environment is getting depleted day by day. Global warming has become a major threat and the government is taking necessary steps to save our planet. Banking industry is the primary source of economic development and has taken responsibility to contribute for sustainable development through Green Banking. Green Banking is the new buzz word that is making a name for itself in the financial world. It is the process of minimizing internal carbon foot prints as well as external carbon emissions with a concern over exploitation natural resources. This paper highlights the green initiatives adopted by different banks in India and creates awareness about the environment.

Keywords: Global Warming, Green Banking, Sustainable Development, Carbon Footprints, Carbon Emissions.

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DESIGN AND IMPLEMENTATION OF WEB BASED LIBRARY MANAGEMENT SYSTEM

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ABSTRACT

The rapid growth of academic institutions has increased the demand for efficient library management solutions. Traditional manual systems used for maintaining book records, member information, and transaction logs are time-consuming, error-prone, and difficult to manage as the volume of data increases. This paper presents the design and implementation of a Web Based Library Management System that automates library operations using a centralized database architecture. The proposed system enables efficient book cataloging, secure member registration, real-time issue and return tracking, and automated inventory updates. By integrating structured database management with user authentication mechanisms, the system enhances operational transparency, reduces administrative workload, and improves data accuracy. The proposed solution provides a scalable and user-friendly platform suitable for academic institutions.

Keywords: Library Management System, Web Application Architecture, Client-Server Model, Relational Database, MySQL Integration, Role-Based Access Control (RBAC), Transaction Management, Inventory Monitoring, Data Consistency, Academic Resource Management

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ALUMNI HUB: A SUSTAINABLE DIGITAL ALUMNI ENGAGEMENT PLATFORM FOR GREEN HUMAN RESOURCE DEVELOPMENT AND INSTITUTIONAL VALUE CREATION

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ABSTRACT

Educational institutions rely heavily on alumni networks to strengthen professional collaboration, mentorship opportunities, and career development for students. Alumni often act as industry mentors, recruiters, and contributors to institutional growth. However, many institutions still manage alumni data through fragmented systems such as spreadsheets, email groups, or social media platforms. These traditional approaches often lead to outdated records, inefficient communication, and limited interaction between alumni and students. As institutions expand and graduate numbers increase every year, managing alumni engagement effectively becomes a significant challenge. Therefore, there is a growing need for a centralized digital platform that can manage alumni data efficiently while improving collaboration and communication among stakeholders.

Keywords: Alumni Management System, Digital Networking, Career Development, MERN Stack, Institutional Collaboration

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DATA VISUALIZATION AND PERFORMANCE ANALYTICS OF FIFA WORLD CUP USING INTERACTIVE DASHBOARDS

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ABSTRACT

The FIFA World Cup is one of the most prestigious and data-intensive sporting events globally, generating extensive datasets related to teams, players, matches, goals, venues, and tournament outcomes. Analyzing such large volumes of historical data presents challenges in extracting meaningful insights using traditional reporting methods. This paper presents a comprehensive data analytics framework titled FIFA World Cup: Data Analytics and Interactive Dashboard Using Power BI. The proposed system transforms raw World Cup datasets into structured, analytical models and visually interactive dashboards using Microsoft Power BI.

The framework integrates data cleaning, transformation, and visualization techniques to provide insights into team performance, goal statistics, host country trends, and historical comparisons across tournaments. Interactive features such as filters, slicers, and drill-through capabilities enable dynamic exploration of data for improved decision-making and performance evaluation. Experimental implementation demonstrates that the dashboard enhances analytical efficiency, supports data driven sports analysis, and simplifies complex statistical interpretation. The proposed approach offers an effective business intelligence solution for sports analytics and tournament performance assessment.

Keywords: FIFA World Cup, Sports Analytics, Data Visualization, Microsoft Power BI, Interactive Dashboard, Business Intelligence, Performance Analysis, Data Modeling, Tournament Statistics.

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RETRIEVAL-AUGMENTED GENERATION (RAG) AI FOR SUSTAINABLE TOURISM: BUILDING AN ECO-CONSCIOUS ORGANIZATIONAL CULTURE

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ABSTRACT

The rapid expansion of global tourism has significantly contributed to environmental challenges, including increased carbon emissions, excessive resource consumption, biodiversity loss, and overcrowding of major destinations. The tourism sector accounts for nearly 8–10% of global greenhouse gas emissions, largely due to transportation, accommodation, and infrastructure development. Popular destinations such as Singapore and attractions like the Eiffel Tower experience high visitor pressure, resulting in environmental strain and declining visitor experience. Traditional tourism management approaches rely on printed brochures, manual visitor guidance systems, and reactive crowd management, which often lack sustainability integration.

With the emergence of Artificial Intelligence (AI), smart tourism solutions have gained prominence. Among these, Retrieval-Augmented Generation (RAG) AI systems combine real-time knowledge retrieval with generative AI capabilities to produce accurate, context-aware responses. Unlike conventional chatbots, RAG systems access verified databases before generating recommendations, ensuring reliability and sustainability-oriented guidance.

Keywords: RAG AI, Sustainable Tourism, Eco-Conscious Organizational Culture, Smart Tourism, Environmental Sustainability

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EVALUATING SUSTAINABILITY OUTCOMES OF GREEN PROJECTS: A SCIENTIFIC AUDIT PERSPECTIVE WITH SPECIAL REFERENCE TO CHENNAI CITY

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ABSTRACT

Sustainable development has emerged as a critical priority in addressing environmental challenges such as climate change, resource depletion, and urban pollution. In response to these concerns, governments, organizations, and institutions have increasingly implemented green projects aimed at promoting environmental protection, efficient resource utilization, and long-term sustainability. Green projects typically include initiatives such as renewable energy adoption, waste management systems, water conservation programs, eco-friendly infrastructure development, and urban environmental management. While these projects are widely promoted as solutions for sustainable development, their actual effectiveness in achieving sustainability outcomes requires systematic evaluation. Therefore, scientific auditing has gained importance as a structured approach to measure and assess the performance and impact of green initiatives.

The present research evaluates the sustainability outcomes of green projects from a scientific audit perspective with special reference to Chennai City. The main objective of the study is to examine the effectiveness of green projects in achieving environmental, economic, and social sustainability outcomes and to analyze the role of scientific auditing in monitoring and evaluating these initiatives. The study also aims to identify the key factors influencing the successful implementation and evaluation of sustainability practices within green projects.

The research adopts a descriptive research design and is primarily based on primary data collected from 150 respondents within Chennai City. The respondents include environmental professionals, sustainability practitioners, project managers, academic researchers, and stakeholders associated with green initiatives. A structured questionnaire was used to collect relevant data regarding sustainability practices, environmental performance indicators, and auditing mechanisms used in green projects. The collected data were analyzed using statistical tools such as percentage analysis, mean score analysis, correlation analysis, and regression analysis to examine relationships between scientific auditing practices and sustainability outcomes.

The findings of the study indicate that scientific auditing plays a significant role in improving transparency, accountability, and effectiveness in the implementation of green

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projects. The study reveals that projects with structured monitoring systems, environmental performance indicators, and systematic evaluation mechanisms demonstrate stronger sustainability outcomes. Environmental monitoring, stakeholder participation, and regulatory compliance were identified as important determinants influencing the success of green initiatives. The results also suggest that organizations adopting scientific auditing practices are better able to measure environmental impacts and identify areas for improvement in sustainability performance.

Based on the findings, the study recommends the adoption of standardized sustainability auditing frameworks, improved environmental reporting systems, and greater stakeholder involvement in green project evaluation. Training programs related to sustainability assessment and environmental auditing should also be encouraged to enhance professional competencies in sustainability management. The study concludes that scientific auditing serves as an effective tool for evaluating sustainability outcomes and strengthening the performance of green projects. By integrating systematic evaluation methods into environmental initiatives, organizations can enhance sustainability performance and contribute to long-term environmental protection and responsible development.

Keywords: Sustainability Outcomes, Green Projects, Scientific Auditing, Sustainable Development, Environmental Performance Assessment.

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AI-DRIVEN DIGITAL QUOTATION SYSTEMS IN THE AUTOMOTIVE INDUSTRY: ADVANCING ECO-CONSCIOUS ORGANIZATIONAL CULTURE

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ABSTRACT

The automotive retail industry is experiencing rapid transformation driven by digitalization and sustainability imperatives. Traditional car dealerships rely heavily on manual quotation processes involving printed price sheets, repeated cost calculations, physical documentation, and multiple in-person customer visits. These practices not only create operational inefficiencies but also contribute to environmental degradation through excessive paper consumption and transportation-related carbon emissions.

With sustainability becoming a strategic priority for organizations, there is increasing pressure to integrate environmentally responsible practices into everyday business operations. Artificial Intelligence (AI) presents an opportunity to address both efficiency and sustainability concerns simultaneously. AI-driven digital quotation systems automate pricing, integrate real-time inventory data, and generate instant electronic quotations. Beyond operational improvements, these systems have the potential to cultivate eco-conscious organizational culture by embedding environmental responsibility into routine dealership activities.

The objective of this study is to examine how AI-powered digital quotation systems can contribute to sustainable operational transformation and promote eco-conscious values within automotive retail organizations.

Keywords: Artificial Intelligence, Digital Quotation System, Sustainable Automotive Retail, Eco-Conscious Culture, Green Transformation

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STOCK PRICE PREDICTION USING DEEP LEARNING

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ABSTRACT

The stock market is one of the most complex and dynamic financial systems in the world. Investors continuously attempt to predict stock price movements in order to make profitable investment decisions. However, accurate prediction of stock prices remains a difficult task due to the highly volatile and non-linear nature of financial markets. Stock prices are influenced by a variety of factors such as economic conditions, company performance, political events, market sentiment, and global financial trends. Because of these factors, traditional stock prediction methods often struggle to provide reliable and consistent results.

Traditionally, investors rely on two main techniques for stock market analysis: fundamental analysis and technical analysis. Fundamental analysis focuses on evaluating a company's financial statements, market position, and economic indicators to estimate its intrinsic value. Technical analysis, on the other hand, studies historical price movements and trading patterns to identify possible future trends. Although these methods are widely used in financial markets, they often require significant expertise and manual interpretation. Additionally, traditional statistical techniques may fail to capture complex relationships and hidden patterns present in large financial datasets.

With the rapid advancement of Artificial Intelligence and Machine Learning technologies, new approaches have emerged for financial forecasting. In particular, deep learning models have gained significant attention due to their ability to automatically learn patterns from large volumes of data. Among these models, Long Short-Term Memory (LSTM) networks have proven to be highly effective for time-series prediction tasks. LSTM is a special type of recurrent neural network designed to capture long-term dependencies and sequential relationships in data, making it well suited for analyzing historical stock price movements.

This research proposes a deep learning-based stock price prediction system using LSTM networks. The proposed system uses historical stock market data obtained from Yahoo Finance, which includes key attributes such as opening price, closing price, highest price, lowest price, and trading volume. These features provide valuable insights into market behavior and are used as input variables for training the prediction model. Before training the model, the dataset undergoes several preprocessing steps including data cleaning, handling missing values, normalization using Min-Max scaling, and the creation of time-

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series sequences. These preprocessing techniques help improve the efficiency and accuracy of the model.

The deep learning model is developed using a sequential architecture consisting of LSTM layers, Dense layers, and Dropout layers. The LSTM layers are responsible for learning temporal dependencies in the data, while Dense layers help in extracting meaningful patterns for prediction. Dropout layers are used to reduce the risk of overfitting and improve model generalization. The dataset is divided into training, validation, and testing sets to ensure reliable model evaluation.

The performance of the proposed model is evaluated using standard evaluation metrics such as Mean Squared Error (MSE) and the R^2 score. These metrics help measure the accuracy of the predicted stock prices compared to the actual market values. Experimental results indicate that the LSTM-based deep learning model is capable of effectively learning patterns from historical financial data and generating meaningful predictions of future stock price trends.

Overall, this study demonstrates the potential of deep learning techniques in improving the accuracy of stock market prediction. The proposed system can assist investors, financial analysts, and researchers in understanding market trends and making more informed investment decisions. In future work, additional data sources such as financial news, social media sentiment, and macroeconomic indicators can be integrated into the model to further enhance prediction performance and robustness.

Keywords: Stock Market Prediction, Deep Learning, LSTM Networks, Time Series Forecasting, Machine Learning, Financial Data Analysis.

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FROM COMPLAINTS TO PREDICTIONS: A DATA-DRIVEN FRAMEWORK FOR SUSTAINABLE DEVICE PERFORMANCE ANALYTICS

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ABSTRACT

In modern digital environments, the reliability and performance of technological devices play a crucial role in maintaining efficient organizational operations. Traditional maintenance strategies are often reactive, where issues are addressed only after device failures occur. Such approaches lead to increased downtime, higher operational costs, and inefficient resource utilization. This study proposes a data-driven framework that leverages customer complaint data and device performance metrics to enable predictive maintenance and proactive device management. The system analyzes historical complaint records alongside operational device data to identify patterns that indicate potential failures. By applying data analytics techniques, organizations can detect anomalies, predict device issues in advance, and schedule maintenance activities before failures occur. The proposed framework integrates complaint analytics, device performance monitoring, and predictive maintenance models through an interactive dashboard developed using Python and Streamlit. The system enables real-time monitoring of device health, complaint trends, and risk levels. This approach improves operational efficiency, reduces downtime, and enhances decision-making for maintenance management. Additionally, predictive maintenance contributes to sustainable technology practices by extending device lifespan, reducing electronic waste, and optimizing resource utilization. The research highlights the role of data analytics and predictive models in transforming reactive maintenance into proactive and sustainable device performance management.

Keywords: Data Analytics, Predictive Maintenance, Device Performance Monitoring, Customer Complaint Analysis, Sustainable Technology Management.

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COMPARATIVE FUNDAMENTAL ANALYSIS OF SELECT FMCG COMPANIES LISTED ON NSE USING FINANCIAL RATIOS AND CAGR

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ABSTRACT

The Indian Fast-Moving Consumer Goods (FMCG) is the fourth-largest economic sector in India and it is a vital driver of domestic consumption. Although mainstream analytical discourse is more inclined to focus on industry giants like Hindustan Unilever Limited, ITC Limited, and Nestle India, it is also possible to find a great opportunity in considering the investment potential of middle-sized FMCG organizations. This paper will adopt a pure basic research on five chosen companies of FMCG traded within the National Stock Exchange (NSE) of India viz., Jyothy Labs Limited, Bajaj Consumer Care Limited, Tasty Bite Eatables Limited, Mrs. Bectors Food Specialities Limited and Bikaji Foods International Limited.

The paper uses a multi-dimensional analytical model that consists of liquidity ratios, profitability ratios, market valuation ratios, efficiency ratios and solvency ratios. The Compound Annual Growth Rate (CAGR) analysis is used to examine the revenue growth, Profit After Tax, Earnings Per Share, and stock price development during four years (FY2020-FY2024).

Results show that Bikaji Foods international is the company with maximum growth rate and revenue per capita of 24.9 with a high growth momentum, whereas Bajaj Consumer Care has the best profitability and valuations compared to the chosen companies. Mrs. According to composite ranking, Bectors Food Specialities is the most balanced investment opportunity. The analysis reaches a conclusion that these mid-cap FMCG companies offer practical long-term investment opportunities to growth-oriented investors that can accept moderate level of valuation premiums.

Keywords: FMCG, Fundamental Analysis, Financial Ratios, CAGR, NSE, Benjamin Graham, Mid-Cap Stocks, Indian Capital Markets

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MULTI-CROP PLANT LEAF DISEASE CLASSIFICATION USING MOBILENETV2 TRANSFER LEARNING AND TENSORFLOW LITE MOBILE INTEGRATION

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ABSTRACT

One of the major concerns affecting global agricultural production is plant disease, and early identification is therefore essential. Conventional methods used in plant disease identification are time-consuming and require domain-specific knowledge, which is rarely available in rural agricultural communities. This paper proposes a deep learning-based multi-crop leaf disease classification system using the MobileNetV2 architecture through transfer learning, augmented by a two-phase training strategy and TensorFlow Lite (TFLite) mobile integration. The system addresses five economically important crops, namely banana, coconut, mango, rice, and sugarcane, across 20 distinct classes, trained on a curated dataset of 13,002 images. Phase 1 freezes the MobileNetV2 base model, achieving 88.79% peak validation accuracy, while Phase 2 selectively fine-tunes the last 50 layers, reaching 92.29% peak validation accuracy. The final model achieves 91.48% test accuracy, 0.9131 weighted precision, 0.9148 weighted recall, and 0.9123 weighted F1-score. Post-training quantization reduces the model size from 32.33 MB to 3.16 MB (90.2% compression), enabling direct deployment within a Flutter-based mobile application for real-time field disease diagnosis.

Keywords: MobileNetV2, Transfer Learning, Plant Disease Detection, TensorFlow Lite, Deep Learning

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**CONSUMER TRUST AND SUSTAINABLE PRODUCT MARKETING:
EXPLORING THE IMPACT OF GREENWASHING IN ACHIEVING
SUSTAINABLE DEVELOPMENT GOAL – 12**

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ABSTRACT

The present study examines the impact of greenwashing practices on consumer trust toward environmentally friendly brands. The research also explores the level of consumer awareness regarding greenwashing and identifies the factors that influence consumer perception of sustainability claims. A descriptive research design was adopted for the study, and both primary and secondary data were used. Primary data were collected through a structured questionnaire distributed among respondents. Statistical tools such as reliability analysis, factor analysis, cluster analysis, correlation analysis, and regression analysis were used to analyse the collected data. The findings of the study indicate that consumers are becoming increasingly aware of greenwashing practices and tend to evaluate sustainability claims more critically. The results show a moderate relationship between greenwashing perception and consumer trust, suggesting that misleading environmental marketing practices can influence the level of trust consumers place in environmentally friendly brands. The study highlights the importance of transparency, ethical marketing, and effective regulatory policies in reducing greenwashing practices and promoting genuine sustainability efforts.

Keywords: Greenwashing, Consumer Trust, Sustainable Marketing, Environmental Claims, Consumer Perception

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PAPERLESS PROCESS IMPLEMENTATION WITH THE EMPLOYEE DATABASE MANAGEMENT SYSTEM: A CASE STUDY

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ABSTRACT

Employee Database Management is a well-developed system in the highly competitive global environment of Public-Sector Organizations. Public-sector organizations conduct their business through a manual operational system. In the current global context, social distancing is more prevalent. In the current context, Public Sector Organizations have found a way to operate their businesses efficiently. Hence, it is proposed to assess the current scenario for increment forms for non-academic staff and to introduce a paperless system for preparing increments through a fully automated operational process. For this purpose, data were collected from the university's existing increment forms over a period of three years. Simple statistical tools were employed to analyze the data in this study. This study identifies waste arising from unnecessary processes and practices in the existing system of operation, thereby causing inefficiency. It is proposed to introduce a paperless system through a fully automated system of operation, thereby reducing costs and time through increased efficiency in the system.

Keywords: Efficiency, Employee Database Management System, Paperless Process, Public Sector

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ANALYSIS ON RECENT UPDATES AND POSITIVE IMPACTS OF CARBON FOOTPRINT MEASUREMENT TECHNIQUES

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ABSTRACT

Lately, climate shifts have grown harder to ignore. Because of this pressure, better ways to track heat-trapping gases are now vital. Not just counting pollution from factories but also daily actions matter more than before. One key method spots the full volume of emissions tied to how people live, build, and consume. This tracking system gives real numbers instead of guesses. It shows who adds what to planetary strain. With those figures, groups can decide where changes work best. Progress in these methods has unfolded slowly, step by uneven step. Much of it was shaped through studies appearing in well-known research databases across twenty-six years. Each paper added something slight yet solid to understanding. Numbers gained weight. Methods sharpened without fanfare. Better tools now help measure carbon more clearly in areas like farming, factories, power plants, transport, and tech. Back then, counting pollution meant checking how much fuel was burned or how much energy machines used. Yet those ways missed hidden emissions tied to long, tangled supply networks. So experts built broader strategies - one checks every stage a product goes through, from digging up materials to throwing it away. That method shows exactly where the most CO₂ sneaks out during making things. Another approach maps money and resources moving between industries to trace overlooked sources. One way to look at pollution is by linking industry activity to economic records - this method ties resource use to output across places and fields. Lately, experts have leaned on mixed models that pair step-by-step production reviews with broad economic flows, filling missing bits in emission numbers. By blending these views, scientists catch emissions close at hand as well as those hidden far down international supply lines. Tech tools like smart algorithms, live tracking networks, and shared eco-data platforms now play bigger roles in how footprints are tracked. With these upgrades, tallying carbon becomes quicker, less error-prone, and useful sooner for companies and officials alike. Using such methods has already led to clearer insights, better decisions, and sharper awareness around ecological costs. Some tools let companies spot where emissions run high, boost how well they use power, while shaping greener ways to make things. Policies on climate, along with carbon fees and plans to cut pollution, take shape when governments rely on footprint numbers tied to global deals like the Paris Agreement. Labels showing carbon footprints appear more often now, alongside web-based calculators that open eyes - people start seeing their choices matter a little clearer each day. Tracking carbon flows aids business reports about green efforts, giving firms a way to watch steps forward - or backward - on paths aiming at zero emissions someday. Yet hurdles linger even amid progress; methods clash across studies, reliable data feels scarce too often, supply chains stretch so deep it gets tough to guess what is really going on

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underneath. One way forward might involve creating consistent worldwide rules for tracking carbon emissions. Tools like artificial intelligence could team up with massive data sets to sharpen accuracy. Real-time tracking systems may add clarity by showing changes as they happen. Progress here tends to tighten the trustworthiness of how footprints are measured. Better assessments often quietly support broader environmental goals. Clearer numbers usually help nations act with more confidence. Work in this area can ripple through policies over time. Solid methods sometimes shape stronger climate responses across regions.

Keywords: Carbon footprint, life cycle assessment, carbon accounting, greenhouse gas emissions, sustainability assessment, climate change mitigation

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GREEN CAMPUSES: CATALYZING SUSTAINABLE INNOVATION AND ENTREPRENEURIAL ECOSYSTEMS

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ABSTRACT

This paper explores how higher education institutions are emerging as key enablers or eco- entrepreneurship through the development of green campuses and the integration of sustainable innovations. It examines the strategic role universities play in promoting environmental stewardship, reducing carbon footprints and fostering sustainability driven entrepreneurial ecosystems. Drawing on case examples and initiatives across India, the study highlights transformative efforts in areas such as renewable energy adoption, energy efficient smart buildings, eco-friendly transportation systems, and responsible e-waste management. Emphasis is placed on how these efforts not only contribute to institutional sustainability but also stimulate green entrepreneurial ventures among students, faculty, and local communities. The paper further explores how universities can serve as incubators for sustainable startups and social enterprises through innovation labs, policy support, and curriculum integration. Challenges such as financial constraints, regulatory hurdles and resistance to change are addressed alongside solutions including public private partnerships, awareness campaigns and capacity building programmes. Ultimately, this research provides actionable insights for academic leaders, policymakers, and entrepreneurs committed to aligning sustainability goals with an entrepreneurial impact in the higher education sector.

Keywords: Green Campuses; Sustainable Innovation; Higher Education; Green Entrepreneurship; Environmental Sustainability.

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IMPACT OF NIGHT SHIFT WORK ON DIETARY BEHAVIOUR AND EMPLOYEE WELLNESS AMONG IT PROFESSIONALS

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ABSTRACT

Globalization created the trend of increased number of workers, especially in the Information Technology (IT) sector to work in night shifts due to the growing demand of employment services. Working night shifts has developed a greater imbalance in the circadian rhythms and may have an impact on an employee’s health, eating habits, way of life, and general well-being.

The study's objectives were to determine how night shift work affected IT workers' dietary habits and to find the association between employee wellness metrics like body mass index (BMI), sleep duration, physical activity, and eating habits.

Night shift work influences dietary patterns, lifestyle behavior, and health indicators among IT employees. Workplace wellness initiatives focusing on nutrition education, structured meal timings, and promotion of physical activity may help improve employee health and contribute to sustainable work environments.

Keywords: Night shift work, Dietary behaviour, circadian rhythm, IT professionals, Body Mass Index, Physical activity, Employee wellness.

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A STUDY ON GREEN FINANCIAL PRODUCTS AND THEIR INFLUENCE ON CONSUMER BUYING BEHAVIOUR

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ABSTRACT

Green finance has emerged as an essential tool for promoting sustainable development and environmentally responsible investment practices. Green financial products such as green bonds, green loans, sustainable mutual funds, and eco-friendly insurance policies are designed to support projects that promote environmental protection and resource conservation. These products encourage individuals and institutions to invest in activities that contribute to environmental sustainability while also generating financial returns. In recent years, consumer awareness regarding environmental issues and climate change has increased significantly, influencing purchasing and investment decisions. Consumer buying behaviour towards financial products is increasingly shaped by environmental concerns, social responsibility, and ethical investment considerations. Consumers today prefer financial services that not only provide economic benefits but also support environmental sustainability. Green financial products attract environmentally conscious consumers who seek to align their financial decisions with ecological values. Studies indicate that consumer perceived value, awareness, trust, and incentives significantly influence the adoption of green financial products. The integration of digital technologies and green finance platforms has also improved accessibility and awareness among consumers. Green consumer behaviour refers to purchasing decisions that consider environmental impacts and sustainability aspects of products or services. Consumers often prefer products that have minimal environmental impact and support sustainable development initiatives. The research analyzes consumer awareness, attitudes, and preferences towards green financial products and identifies key factors influencing their adoption. Primary data were collected through a structured questionnaire and analyzed using statistical tools such as percentage analysis, correlation, regression, and chi-square tests. The findings reveal that environmental awareness, perceived benefits, and trust in financial institutions significantly influence consumer purchasing behaviour regarding green financial products. The study concludes that effective marketing strategies, financial literacy programs, and government policies can enhance consumer participation in green finance and promote sustainable economic development.

Keywords: Green Finance, Green Financial Products, Consumer Behaviour, Sustainable Investment, Environmental Awareness

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SOCIAL MEDIA SPACE FOR HIGHLIGHTING WOMEN ENTREPRENEURS IN SUSTAINABLE AGRICULTURE- A STUDY ON FACEBOOK, INSTAGRAM AND YOUTUBE PLATFORMS

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ABSTRACT

As per the report from the National Sample Survey Office (NSSO), approximately 46.0% of the agricultural workforce in India consists of women; however, merely 13.0% of rural women participate in entrepreneurial activities. Entrepreneurship is vital for economic growth and development. It encourages innovation, generates job opportunities, and aids in social transformation. Young women are still underrepresented in the entrepreneurial sector, despite showing considerable potential. Women have consistently held a vital position in agriculture, yet they have frequently been disregarded or undervalued. Nevertheless, as awareness of the significance of women's contributions to farming increases, an increasing number of women are assuming leadership positions within the sector. These women are pioneering sustainable agricultural practices, championing gender equality, and empowering fellow women farmers. As per GEM reports, women make up only one-third of the economic enterprises. However, the shift from homemaker to entrepreneur is challenging for women. Across India, women encounter numerous barriers such as the gender gap, lack of family support, insufficient social networks, and socio-cultural obstacles. Government initiatives and policies, along with economic independence and improved social status, inspire women to pursue entrepreneurship and become essential contributors to the nation's growth and development. According to the Indian Human Development Survey (IHDS), women in India still need permission to visit markets or health facilities. This study is an attempt to study the role of social media in highlighting women entrepreneurs in sustainable ventures particularly sustainable agriculture. Sustainable agriculture represents a farming approach that prioritizes the long-term preservation of natural resources while encouraging environmentally-friendly practices. Its objective is to satisfy the food requirements of the current population without jeopardizing the capacity of future generations to fulfill their own needs. In India, it is estimated that a considerable proportion of women entrepreneurs in rural regions are engaged in agriculture-related enterprises, including farming, food processing, and handicrafts. Organic farming surfaced as the most commonly discussed topic, underscoring its prominence within the sustainable agriculture dialogue on social media. The research highlighted the potential of social media to disseminate information, encourage discussions, and influence consumer perceptions

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regarding sustainable agriculture. Grasping and utilizing the influence of social media can aid in the promotion of sustainable farming practices by enabling knowledge exchange, increasing awareness, and nurturing a community of stakeholders dedicated to sustainable agriculture. The Indian women, even after facing many challenges, is now trying to become economically independent. The government has come forward with many facilities, concessions, and incentives exclusively for women entrepreneurs. General measures can be adopted to encourage and develop women entrepreneurship. Even illiterate women have the potential and the determination to set up, uphold, and supervise their own enterprises in a very systematic manner. Rural women are not aware and literate enough to handle all the legal and other formalities involved in taking out loans and establishing an industrial unit. They also lack confidence in their ability to run an entrepreneurial business. They need capacity building and training in functional areas such as finance, literacy skills, marketing, production, and managerial skills. The only urgent need is to create a favorable atmosphere to increase self-employment for women and all other developments in the country. Thus, there are bright prospects for rural women entrepreneurship in India.

The Indian government has launched various schemes and programs designed to promote and support women's entrepreneurship within the agricultural sector. Media serves a crucial function in promoting women's entrepreneurship within sustainable agriculture by enhancing their visibility, confronting conventional gender stereotypes, and enabling access to information and markets. The methodology includes A detailed compilation of widely-used social media platforms, such as Facebook, Twitter, Instagram, and YouTube, was used for gathering data. A methodical content analysis technique was applied to classify and examine 100 posts, articles, videos, and various other media pertaining to sustainable agriculture. The results underscored the important function of social media platforms, including Facebook, in advancing sustainable agricultural practices and influencing consumer perceptions. Social media provides them with the opportunity to connect with experts, become part of farming communities, participate in webinars, and engage in discussions that assist them in making informed decisions and adopting sustainable practices that are beneficial for both the environment and their long-term economic sustainability.

Keywords: Sustainable Agriculture, Social Media, Facebook, Instagram, YouTube, Women Entrepreneurs.

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IMPACT OF GREEN HUMAN RESOURCE MANAGEMENT PRACTICES ON EMPLOYEE GREEN BEHAVIOR: THE MEDIATING ROLE OF EMPLOYEE ENGAGEMENT

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ABSTRACT

Organisations have increasingly adopted environmentally sustainable practices as a response to escalating ecological concerns and to improve corporate responsibility (Andrew J. Hoffman, 2001; Daniel C. Esty & Andrew S. Winston, 2006). In this context, Green Human Resource Management (Green HRM) has emerged as a significant strategic approach that integrates environmental management with human resource practices (Arulrajah A. A., Opatha H. H. D. N. P., & Nawaratne N. N. J., 2015). This study investigates the relationship between green HRM practices and employee green behaviour, emphasising the mediating role of employee engagement. Green HRM practices, including green recruitment and selection, green training and development, green performance management, and green rewards, are anticipated to promote environmentally responsible behaviours among employees in the workplace (Renwick Douglas W. S., Redman Tom, & Maguire Stuart, 2013). This study examines the impact of employees' perceptions of Green HRM initiatives on their engagement levels and, in turn, their environmentally friendly behaviours in the workplace. Employee engagement plays a critical role in motivating employees to actively participate in organisational sustainability initiatives (William A. Kahn, 1990; Wilmar B. Schaufeli, Arnold B. Bakker, & Marisa Salanova, 2006). Data for the study will be gathered from employees across different sectors using a structured questionnaire. Descriptive statistics, correlation analyses, and structural equation modelling can be employed to analyse the relationships among the variables. The findings are anticipated to demonstrate that Green HRM practices have a positive impact on employee engagement and foster employee green behaviour, with employee engagement serving as a significant mediator in this relationship (Neal M. Ashkanasy & Ashlea McMillan, 2015).

This study enhances the existing literature on sustainable human resource management by emphasising employee engagement in organisational environmental initiatives. It also offers practical implications for organisations aiming to strengthen their sustainability strategies through the effective implementation of Green HRM practices. Promoting employee involvement in environmental initiatives can enhance organisational sustainability cultures and elevate overall environmental performance (Jason Jabbour & Ana Beatriz Lopes de Sousa Jabbour, 2016).

Keywords: Green Human Resource Management, Employee Engagement, Employee Green Behaviour, Sustainability, Environmental Management.

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REVIEW ON SUSTAINABILITY TRAINING PROGRAMS IN HINDI SKILL DEVELOPMENT

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ABSTRACT

Recently, schools have started placing more weight on teaching sustainability as part of a well-rounded education. Helping young people grasp environmental problems goes hand in hand with shaping thoughtful actions toward nature. Since language lets learners voice thoughts and exchange views, it becomes a key tool when talking about ecological matters. Weave environmental topics into language lessons, then speaking abilities grow along with care for the planet. Studies focusing on eco-literacy, models for long-term development, and teaching methods rooted in nature show clear benefits - linking green themes with language study sharpens both speech skills and understanding of Earth’s needs. Language classes are starting to be seen as spaces for talking about nature and eco-topics, opening chances to grow words around green living. Through readings, written work, and talks, learners meet terms tied to climate shifts, protecting species, and mindful habits - building fluency along the way. Instead of just textbooks, some teachers use hands-on tasks: team assignments, mock trials, sharing tales, acting out scenarios - all rooted in real-world earth challenges. By working together on these, students shape ideas aloud, sharpen how they write, and think more deeply. On top of that, websites and digital tools now help spread green-minded thinking by giving students videos, readings, and chances to join online talks about sustainability - reaching far past school walls. Not only do they boost knowledge, but group efforts outside classrooms tie language practice to actual planet-friendly actions. These moments build stronger speaking abilities along with a sense of duty toward society. Besides, materials that link language study with nature topics are usually hard to find. Fixed lesson plans along with tight schedules tend to block creative green classroom tasks. Still, research shows teaching Hindi through an environmental lens could boost both speaking ability and care for nature. Talking about ecology while learning Hindi builds word knowledge, sparks deeper thought, sometimes leads to real talk about protecting the planet. Starting fresh might mean designing classroom methods in Hindi that weave eco-awareness into daily lessons. One path could involve creating learning apps tailored for Indian schools, where nature themes blend with grammar practice. Picture students reading stories about rivers while mastering verb forms. Tools like these may slowly shift how teachers connect language skills with real-world care for surroundings. Over time, young speakers might grow fluent in both conversation and conservation. Learning to write essays could double as exploring ways to save forests. The goal is to think deeply in Hindi while valuing balance with Earth.

Keywords: Sustainability education, Hindi language learning, eco-literacy, green pedagogy, environmental education, skill development

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YOUTH-LED SUSTAINABLE CONSUMPTION PATTERNS: GENERATIONAL PERSPECTIVES ON RECYCLING AND UPCYCLING IN THE FOOD & BEVERAGE SECTOR

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ABSTRACT

Sustainable consumption is a key part of protecting the environment and promoting circular-economy practices, especially in the food and beverage sector, which generates significant packaging and food waste. Younger consumers, particularly Generation Z and Millennials, play a major role in pushing for sustainability in the market. This study examines differences between generations in their sustainable consumption habits by examining how Gen Z and Millennials respond to recycling and upcycling efforts in the food and beverage sector. Through a comparative approach, the research looks at awareness levels, attitudes, intentions, and participation in recycling and upcycling. It also explores how environmental concern, social influences, and perceived corporate responsibility affect sustainable consumption choices among young people. The findings aim to help businesses and policymakers design targeted sustainability strategies that engage younger generations, support circular economy principles, and lower environmental impact in food and beverage supply chains. This study adds to the growing body of work on youth-led sustainability and backs consumer-driven methods for promoting sustainable development.

Keywords: Young consumers, Upcycling, Recycling, Food and Beverage sector, Sustainable consumption, Supply value chain.

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DEVELOPMENT OF SUSTAINABILITY INDICATORS FOR HEALTHY AND SUSTAINABLE DIETS

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ABSTRACT

The development of sustainability indicators is essential for evaluating diets that are both nutritionally adequate and environmentally sustainable. Research highlights the need to integrate environmental impact metrics with nutritional quality to support sustainable food systems. Studies by Vasiliki Grigoriadis *et al.* emphasize combining nutrient density with environmental indicators such as greenhouse gas emissions, land use, and water use. Hence, this review was done by searching databases like Google Scholar, Science Direct and PubMed using keywords such as sustainability, food choices, nutrition, indicators by applying the time restriction of 5 years from 2021 to 2026. A review by Matthew R. Harrison *et al.* identifies key indicators across environmental, nutritional, economic, and socio-cultural dimensions. Evidence from Catherine Chen *et al.* suggests that dietary shifts toward plant-based foods can support sustainability goals while improving health outcomes. Other studies highlight the role of environmental footprints and life-cycle assessment methods in evaluating sustainable dietary patterns. Behavioral factors, including social norms influencing food choices, also contribute to sustainability assessment. Overall, developing integrated indicators is crucial for guiding policies and consumer decisions toward healthier and more sustainable diets globally.

Keywords: sustainability, food choices, nutrition, indicators

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THE ROLE OF DIGITAL ECO-CONSCIOUSNESS IN ACHIEVING REGENERATIVE OUTCOMES: EVIDENCE FROM TAMIL NADU ECOTOURISM

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ABSTRACT:

The growing integration of digital technologies in tourism has created new opportunities to promote sustainable and environmentally responsible travel behaviour. In ecotourism, digital platforms, smart technologies, and online engagement tools play a crucial role in enhancing tourists' environmental awareness and encouraging sustainable tourism practices. This study aims to examine the influence of tourist perceived digital sustainability on tourist-driven regenerative outcomes through the mediating role of digital eco-consciousness. The study conceptualizes digital sustainability through three dimensions: perceived environmental technology, perceived eco-friendly platforms, and perceived engagement tools. Digital eco-consciousness is represented by eco-awareness via digital media, digital usability perception, and intended green behaviour, while regenerative outcomes are measured through behavioural environmental impact, social contribution perception, and economic support intention.

Primary data were collected from 250 tourists using a structured questionnaire. Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) using LISREL were employed to test the measurement and structural models. The CFA results indicate that all constructs exhibit acceptable factor loadings above 0.70, confirming convergent validity and reliability of the measurement model. The model fit indices demonstrate a good model fit ($\chi^2 = 688.90$, $df = 573$, $\chi^2/df = 1.20$, $RMSEA = 0.029$). The SEM results reveal that perceived digital sustainability significantly influences tourists' digital eco-consciousness, which subsequently has a positive effect on behavioural environmental impact, social contribution perception, and economic support intention.

The findings highlight that digital technologies and eco-friendly digital platforms play an important role in enhancing tourists' environmental awareness and responsible behaviour, thereby contributing to regenerative tourism outcomes. This study contributes to the emerging literature on digital sustainability and regenerative tourism by providing empirical evidence on how technology-driven tourism practices can support sustainable ecotourism development. The results offer valuable insights for tourism policymakers,

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destination managers, and digital platform developers in designing technology-based strategies that promote environmentally responsible and regenerative tourism practices.

KEYWORDS: Digital Sustainability, Ecotourism, Digital Eco-Consciousness, Regenerative Tourism, Structural Equation Modelling (SEM), Sustainable Tourism.

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GREEN HUMAN RESOURCE MANAGEMENT PRACTICES AND THEIR IMPACT ON ORGANIZATIONAL ENVIRONMENTAL PERFORMANCE

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ABSTRACT

The growing concern for environmental protection has encouraged organizations across the world to integrate sustainability into their management practices. Earlier, corporate success was largely measured through financial performance and economic growth. However, modern organizations are increasingly expected to balance economic objectives with social responsibility and environmental protection. This shift has resulted in the emergence of green management practices and environmental management systems (EMS) that help organizations reduce ecological damage while maintaining operational efficiency. The present study examines the role of green human resource management practices in supporting environmental management within organizations. The study reviews existing literature related to environmental management systems and the role of human resource management in promoting sustainable organizational practices. Particular attention is given to key HR functions such as recruitment, training and development, rewards and compensation, employee empowerment, and teamwork. Green recruitment practices attract environmentally conscious employees, while training programs help employees develop knowledge and skills required to implement environmental strategies effectively.

The findings indicate that reward systems and recognition programs motivate employees to participate in environmental initiatives such as waste reduction and pollution control. Environmental training programs and employee empowerment further strengthen the implementation of green practices within organizations. In addition, teamwork and managerial support play a crucial role in enhancing environmental awareness and improving organizational environmental performance. The study concludes that green HRM practices are essential for successful implementation of environmental management systems. By promoting employee involvement, environmental training, and responsible management practices, organizations can reduce their ecological impact while improving productivity and competitiveness. Integrating environmental responsibility into HR strategies therefore represents an important step toward sustainable organizational development and a healthier environment for future generations.

Keywords: GHRM; EMS; Sustainable Organizational Practices; Environmental Training; Green Recruitment; Employee Empowerment; Environmental Performance; Corporate Sustainability; Organizational Culture; Sustainable Development.

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EMPLOYEE ENGAGEMENT IN ENVIRONMENTAL INITIATIVES

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ABSTRACT

While organizations invest significantly in green technologies and top-down sustainability strategies, the successful implementation of these initiatives is fundamentally dependent on the participation and commitment of their employees. This research paper focuses on employee engagement in environmental initiatives, going beyond compliance to explore the psychological, organizational, and social dynamics that create a genuinely sustainable workplace culture.

The paper begins by establishing a conceptual framework, distinguishing between prescribed "green behaviour" (compliance with organizational rules) and proactive "environmental citizenship" (individual initiative). It argues that actual engagement resides with employees' initiatives, where employees become internal change agents, innovating and executing sustainable practices. Discussing established theories, the study examines the practicality of such engagement. It proves that individual employee factors, such as environmental values, awareness of environmental issues, and sense of personal responsibility, form as the foundation. However, these individual efforts are both encouraged or restricted by organisational motives and structure.

The core of the analysis focuses on the critical role of organizational factors. It investigates how perceived organizational support for the environment, often termed "pro-environmental HRM," appears through formal mechanisms. This includes integrating sustainability into job designs, providing environmental training, and linking performance management and rewards to green outcomes. Crucially, the paper highlights the indispensable role of leadership. It differentiates between transactional leadership, which enforces compliance, and transformative leadership, which inspires a shared vision and empowers employees to contribute meaningfully to environmental goals. The study explores how leaders who communicate a genuine commitment to sustainability can significantly enhance employee trust and motivation.

Furthermore, the research expands the lens to consider the social and structural environment. It examines how a positive organizational climate for sustainability, reinforced by supportive team norms and open communication structure, creates a sense of collective effort to reach corporate sustainability. When employees see their colleagues engaging in pro-environmental behaviours and feel their own ideas are valued, a powerful ripple effect is created. The paper also addresses the design of environmental initiatives themselves, advocating for participatory approaches. It argues that programs co-created with employees, such as "green teams" or innovation incubators, are far more likely to generate sustained

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engagement than top-down mandates, as they tap into employees' intrinsic motivation and on-the-ground expertise.

In conclusion, this research refines the findings to present an integrated model of employee engagement in environmental initiatives. It underscores that adoption of such engagement is not a singular human resources program but a strategic, multi-level journey. It requires cultivating individual awareness, embedding sustainability into organizational systems, enacting supportive leadership, and nurturing a collaborative culture. The paper concludes by discussing practical implications for managers and policymakers, advocating for a holistic approach where employees are viewed not as tools for executing a green strategy, but as vital partners and co-creators in an organization's journey toward genuine environmental stewardship. Future research directions are proposed, including longitudinal studies to track engagement over time and cross-cultural analyses to understand contextual variations.

Keywords: Employee Engagement, Environmental Initiatives, Pro-Environmental Behaviour, Sustainable Workplace Culture, Green Human Resource Management (Green HRM).

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ROLE OF GREEN FINANCE IN CREATING SUSTAINABLE WORK ENVIRONMENT

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ABSTRACT

Green finance has become an important concept in promoting sustainable development and environmentally responsible business practices. It refers to financial investments, policies, and funding that support projects aimed at protecting the environment, such as renewable energy, energy efficiency, waste management, and pollution control. In recent years, organizations have increasingly recognized the need to integrate environmental sustainability with their business operations. Green finance helps companies adopt eco-friendly technologies and sustainable practices while maintaining economic growth. One of the key benefits of green finance is its role in creating sustainable work environments. A sustainable workplace focuses on reducing environmental impact while improving the health and well-being of employees. Financial support through green investments allows organizations to develop energy-efficient infrastructure, improve indoor air quality, use renewable energy sources, and implement effective waste management systems. These initiatives not only benefit the environment but also contribute to a healthier and more comfortable workplace. Government policies and financial institutions also play a crucial role in promoting green finance. Many governments provide incentives, subsidies, and regulatory support to encourage businesses to adopt environmentally friendly practices. Banks and financial institutions offer green loans and sustainable investment opportunities to support companies that focus on environmental protection.

KEYWORDS: Green Finance, Sustainable Work Environment, Green HRM, Environmental Sustainability, Employee Well-being.

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EFFECTIVENESS OF E-RECRUITMENT AS A GREEN HRM PRACTICE

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ABSTRACT

Lately, a lot of companies are trying to make their operation more eco- friendly. Green HRM is one way they do that, blending environmental stuff with regular HR tasks. I think e-recruitment stands out here as a smart choice for hiring without wasting resources.

E-recruitment basically means using websites, job sites online, or social media to find and pick candidates. It cuts down on paper for applications and saves on travel for interviews too. That seems helpful for the environment right away. Plus, it lowers those admin costs from old-school method.

Organisation can switch to digital everything, which speeds thing up a bit. They reach more people from different backgrounds, so hires might be better overall. But implementing it is not always smooth. There are tech problems sometimes, worries about data getting hacked, and not everyone can access it easily if they lack good internet or devices.

It feels like when done right, e- recruitment boots sustainability and make the company look good as an employer. I might be oversimplifying, but it also helps with competing better .so companies should probably include it in their Green HRM plans for both green goals and smoother operations.

This part about challenges makes me think some job seekers get left out. Anyway, the benefits seem to outweigh that mostly

Keywords: Green HRM, E-Recruitment, Environmental Sustainability, Digital Recruitment, Sustainable HR practices Online Hiring

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BIODIVERSITY ASSESSMENT AND ECOSYSTEM MONITORING FOR SUSTAINABLE ENVIRONMENTAL MANAGEMENT

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ABSTRACT

Biodiversity plays a vital role in maintaining the stability and sustainability of ecosystems. The increasing pressure from human activities such as urbanization, industrialization, deforestation, and climate change has significantly affected natural ecosystems around the world. Therefore, biodiversity assessment and ecosystem health monitoring have become essential tools for understanding environmental changes and ensuring sustainable resource management. Biodiversity assessment refers to the systematic evaluation of the variety and variability of living organisms within a particular ecosystem, including plants, animals, and microorganisms. It helps in identifying species richness, distribution patterns, and ecological interactions that contribute to the functioning of ecosystems. Ecosystem health monitoring focuses on evaluating the condition and resilience of ecosystems by examining biological, physical, and chemical indicators. Healthy ecosystems maintain balanced ecological processes, support diverse species, and provide essential ecosystem services such as clean air, water purification, soil fertility, and climate regulation. Regular monitoring helps detect environmental degradation, habitat loss, and pollution at an early stage, enabling policymakers and environmental managers to take corrective actions. Various scientific methods are used in biodiversity assessment and ecosystem monitoring, including field surveys, species inventories, remote sensing technologies, and ecological indicators. Advances in technologies such as Geographic Information Systems (GIS), satellite imaging, and environmental DNA (eDNA) analysis have improved the accuracy and efficiency of monitoring programs. These tools allow researchers to track ecosystem changes over time and evaluate the effectiveness of conservation strategies.

In conclusion, biodiversity assessment and ecosystem health monitoring are crucial for understanding environmental conditions and protecting natural ecosystems. Continuous monitoring, combined with modern technological tools and effective environmental policies, can help maintain ecological balance and ensure long-term environmental sustainability for future generations.

Keywords: Biodiversity Assessment, Ecosystem Health, Environmental Monitoring, Conservation, Sustainable Development, Ecological Indicators, Environmental Sustainability.

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ROLE OF NBFCs IN PROMOTING GREEN FINANCE & FINANCIAL INCLUSION FOR SUSTAINABLE ECONOMIC DEVELOPMENT WITH REFERENCE TO CHENNAI CITY

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ABSTRACT

Green finance has emerged as a significant financial mechanism aimed at supporting environmentally sustainable projects and promoting long-term economic development. It involves the allocation of financial resources to initiatives such as renewable energy, energy-efficient technologies, green infrastructure, and environmentally responsible investments. In the Indian financial ecosystem, RBI-regulated Non-Banking Financial Companies (NBFCs) play a crucial role in providing credit access to underserved populations, small entrepreneurs, and MSMEs. In urban centres like Chennai, integrating green finance with financial inclusion has the potential to stimulate sustainable economic development and support the achievement of global sustainability goals. Although NBFCs are known for expanding financial inclusion, their specific role in promoting green finance initiatives has not been extensively examined at the regional level. Recent studies conducted between 2019 and 2025 highlight the increasing importance of green finance in promoting sustainable economic growth. Recent literature also suggests that financial institutions play a critical role in integrating sustainability with economic development objectives. The primary objective of the study is to evaluate the relationship between green finance, financial inclusion, and economic growth through NBFC activities. The Study examines the accessibility of green financial services, the contribution of NBFCs to sustainable economic activities, and their impact on inclusive growth. The study adopts a positivism research approach, emphasising objective measurement and empirical analysis. Both primary and secondary data are used for the research. Primary data is collected through structured questionnaires from respondents associated with NBFC services, while secondary data is obtained from research articles, financial reports, and relevant publications related to green finance and financial inclusion. Strengthening awareness, regulatory support, and sustainable financing frameworks can further enhance NBFC participation in green financial initiatives. Overall, integrating green finance with inclusive financial services can significantly contribute to sustainable economic development and the achievement of SDG goals.

Keywords: Green Finance, NBFCs, Financial Inclusion, Sustainable Development, SDGs, Economic Development, Sustainable Finance, MSME Financing, Climate Finance, Chennai City.

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TRANSFER LEARNING-BASED MULTI-CROP PLANT DISEASE CLASSIFICATION USING MOBILENETV2 WITH TENSORFLOW LITE DEPLOYMENT

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ABSTRACT

Plant diseases continue to pose a significant challenge to global agricultural productivity, making early detection essential for reducing crop losses and improving food security. Conventional methods of plant disease identification are often time-consuming and require expert knowledge, which may not be readily available to farmers, particularly in rural agricultural communities. To address this issue, this study proposes a transfer learning-based multi-crop plant disease classification system using the MobileNetV2 architecture with Tensor Flow Lite deployment for mobile-based disease diagnosis. The proposed system focuses on five economically important crops—banana, coconut, mango, rice, and sugarcane—covering 20 disease and healthy leaf categories. A curated dataset consisting of approximately 12,850 leaf images was used to train and evaluate the model. The classification framework adopts a two-phase training strategy to enhance learning performance. In Phase 1, the base layers of the MobileNetV2 network are frozen to leverage pre-trained feature extraction, resulting in a peak validation accuracy of 87.96%. In Phase 2, selective fine-tuning is applied to the final 45 layers of the network, allowing the model to learn crop-specific disease patterns and improving the peak validation accuracy to 91.74%. The final optimized model demonstrates strong performance with a test accuracy of 90.82%, along with 0.9075 weighted precision, 0.9082 weighted recall, and a 0.9068 weighted F1-score, indicating consistent classification performance across multiple crop types. To facilitate mobile deployment, post-training quantization is applied, reducing the model size from 31.90 MB to 3.05 MB, achieving nearly 90.4% compression without significantly affecting accuracy. The compressed model is deployed using TensorFlow Lite and integrated into a Flutter-based mobile application, enabling real-time plant disease detection directly in agricultural fields. This lightweight and efficient system provides farmers with a practical decision-support tool for early disease diagnosis, thereby contributing to improved crop management and sustainable agricultural development.

Key words: Plant disease detection, Multi-crop classification, MobileNetV2, Transfer learning, TensorFlow Lite, Two-phase training, Early diagnosis, Mobile deployment

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A STUDY ON GREEN FINANCE FOR RENEWABLE ENERGY DEVELOPMENT

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ABSTRACT

The development of renewable energy sources and the shift to a low-carbon economy are greatly aided by green finance. It describes monetary investments made in environmentally friendly initiatives including solar, wind, hydro and biomass energy. The significance of green financial products such as green bonds, green loans and climate funds has grown due to the rising demand for sustainable and clean energy. Green finance reduces greenhouse gas emissions, improves energy security and fosters sustainable economic growth by facilitating investments in renewable energy. However, obstacles like high initial investment costs, policy uncertainties and low awareness may impede its growth particularly in developing economies. These financial mechanisms help to mobilise capital for renewable energy infrastructure, technological innovation and energy efficiency projects. The importance of green finance in expediting the development of renewable energy and accomplishing global sustainability goals can be greatly increased by strengthening regulatory frameworks, enhancing financial incentives and promoting public and private collaborations.

Keywords: Green Finance, Renewable Energy, Sustainable Development, Green Bonds, Clean Energy Investment, Climate Finance, Energy Sustainability.

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A STUDY ON THE ROLE OF GREEN FINANCE IN SUSTAINABLE DEVELOPMENT

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ABSTRACT

Green finance has emerged as an important instrument for achieving sustainable development by promoting environmentally responsible investments and financial practices. It focuses on providing funding for initiatives that promote sustainable resource management, renewable energy, climate change mitigation and environmental protection. To lower environmental hazards and boost economic growth, financial institutions, governments and international organisations are progressively implementing green finance initiatives like green bonds, green banking and sustainable investment methods. Green financing helps to lower carbon emissions, increase energy efficiency and promote long-term environmental sustainability by allocating funds to environmentally friendly projects. Additionally, it promotes the incorporation of environmental, social and governance (ESG) factors into financial decision-making by companies and investors. Even though green finance is becoming more and more important, there are still obstacles to its implementation, including low knowledge, regulatory concerns and restricted access to green investment opportunities in underdeveloped nations. Therefore, to develop green finance frameworks, effective regulations, financial innovation and stakeholder participation are crucial. All things considered, green finance is essential to maintain a sustainable future and striking a balance between environmental preservation and economic growth.

Keywords: Green Finance, Sustainable Development, Green Investment, Climate Change Mitigation, Renewable Energy, ESG (Environmental, Social, and Governance), Green Banking.

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SUSTAINABLE INDICATORS FOR GREEN FINANCE: A PATHWAY TOWARD SUSTAINABLE DEVELOPMENT

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ABSTRACT

Sustainable development has become a central focus of global economic and environmental policies due to increasing concerns over climate change, environmental degradation, and resource depletion. Sustainable indicators are essential tools that help policymakers, financial institutions, and organizations assess the effectiveness of financial activities in promoting environmental sustainability and inclusive economic growth. The absence of clear and standardized sustainability indicators often creates challenges in monitoring the real impact of green financial investments. This study adopts a conceptual and analytical approach by reviewing existing sustainability frameworks, green finance policies, and sustainability reporting standards used at national and international levels. The research identifies and develops a set of sustainable indicators that can be used to evaluate the effectiveness of green finance initiatives. These indicators are broadly classified into three major dimensions: environmental indicators, economic indicators, and social indicators, which together provide a comprehensive framework for measuring sustainability performance. The research further highlights the importance of integrating sustainable indicators into financial decision-making and investment evaluation processes. Financial institutions play a significant role in directing capital towards environmentally sustainable projects, and the adoption of standardized sustainability indicators can enhance transparency, accountability, and risk assessment in financial markets. Such indicators also help investors make informed decisions by evaluating the environmental and social impact of their investments. The findings of the study suggest that the development of a structured framework of sustainable indicators can significantly strengthen the effectiveness of green

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finance initiatives. By integrating environmental, economic, and social performance measures, sustainable indicators provide a holistic approach to evaluating sustainability outcomes. In conclusion, sustainable indicator development plays a crucial role in advancing the objectives of green finance and promoting responsible economic growth. Establishing clear measurement tools and evaluation frameworks can improve the efficiency and credibility of green financial systems while supporting global sustainability initiatives. The study contributes to the growing discourse on sustainable finance by proposing a comprehensive indicator-based approach for measuring the effectiveness of green finance in achieving long-term sustainable development goals.

Keywords: Green Finance, Sustainable Indicators, Sustainable Development, Environmental Sustainability, Green Investment, Financial Inclusion, Climate Change Mitigation, Sustainable Economic Growth.

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PSYCHOLOGICAL PREDICTORS OF SUSTAINABLE ENERGY CONSERVATION BEHAVIOR

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Abstract

Energy conservation in the workplace is a vital approach to achieve environmental sustainability and lowering organizational expenses. Even though businesses use technology to cut energy use, employee behavior is crucial to the success of these programs. The current study looks at the psychological factors that influence employees' energy-saving practices at work. The study emphasizes attitude toward energy saving, environmental awareness, self-efficacy, and intrinsic motivation as important psychological factors. A descriptive correlational research design was adopted. Data were collected from 120 employees working in educational institutions using structured questionnaires. Descriptive statistics, correlation, and regression analysis were used for data analysis. The results indicated that environmental awareness, positive attitudes toward sustainability, and higher self-efficacy significantly influence energy conservation behavior in the workplace. The study highlights the importance of psychological interventions and awareness programs in promoting sustainable workplace practices.

Keywords: Energy conservation behavior, environmental awareness, workplace sustainability, intrinsic motivation, self – efficacy, & employees

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WOMEN ENTREPRENEURSHIP IN GREEN AND SUSTAINABLE VENTURES

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ABSTRACT

Women entrepreneurship plays a significant role in promoting sustainable development and environmental protection. In recent years, women entrepreneurs have increasingly engaged in green and sustainable ventures such as organic farming, eco-friendly products, renewable energy solutions, and waste management initiatives. These ventures contribute not only to environmental sustainability but also to economic empowerment and social development. This study aims to explore the role of women entrepreneurs in promoting green businesses and the challenges they face while establishing sustainable enterprises. The research adopts a descriptive approach using secondary data collected from journals, reports, and government publications. The findings indicate that women entrepreneurs significantly contribute to sustainable development through innovative eco-friendly practices, though they still face barriers such as financial constraints, lack of technical knowledge, and limited market access. The paper concludes that policy support, training programs, and financial assistance can enhance women’s participation in green entrepreneurship.

Keywords: Women Entrepreneurship, Green Business, Sustainable Ventures, Environmental Sustainability, Economic Empowerment

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DETERMINANTS OF CONSUMER AWARENESS AND ATTITUDES TOWARDS ELECTRIC VEHICLES: IMPLICATIONS FOR SUSTAINABLE MOBILITY WITH SPECIAL REFERENCE TO CHENNAI DISTRICT

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ABSTRACT

The change toward green transportation has become a significant focus in foundation of environmental issues and reducing reliance on fossil fuels. Electric vehicles (EVs) stand out as a viable option compared to traditional gas-powered cars because they produce lower emissions and are more energy-efficient. This study aims to explore how aware consumers are of EVs and what their attitudes are toward them as well as how these factors impact the promotion of sustainable transportation. Consumer view is vital for framing the policy and manufacturing design and strategy for marketers towards the adoption of EV. This research relies on raw data gathered 150 respondents from Chennai through a structured questionnaire. A descriptive research approach was used to assess awareness, attitudes, and willingness to adopt EVs. Purpose of the research was focused on three variables, consumer awareness, consumer attitude and consumer perception.

The result show that while many respondents know about electric vehicles and their environmental advantages, challenges like high upfront costs, limited charging stations, and worries about battery life still affect consumer attitudes and buying intention. It also indicates that greater awareness and government support are decisive in fostering a favorite perception of EV adoption among the consumers. Limitations of the study are limited sample size of 150 respondents with focused geographic area may affect the final opinion. Moreover, the research mainly addresses consumer views and does not thoroughly explore technological or infrastructural factors related to EV adoption. It concludes that raising consumer awareness, improving charging infrastructure, and offering financial incentives could greatly promote the adoption of electric vehicles and support sustainable transportation. It is recommended for future study to concentrate on diversity of study area with major respondents and also can focus on comparative studies between the regions and various policies of government with respect to EV adoption by consumers.

Key Words: Electric Vehicles, Consumer Awareness and Attitude, Sustainability, Green Transportation, and Chennai.

FACTORS AFFECTING CONSUMER CHANNEL SELECTION IN JEWELLERY PURCHASE: A COMPARATIVE STUDY

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ABSTRACT

The jewellery market is rapidly evolving with the emergence of digital shopping platforms, giving consumers the option to purchase through both online and offline channels. This study aims to identify the determinants influencing consumer channel choice in jewellery purchasing and to compare preferences between online and offline platforms. Primary data were collected from 213 jewellery consumers using a structured questionnaire and the data were analysed using simple statistical tools such as percentage analysis and mean ranking. The results reveal that trust, product authenticity, and the ability to inspect products significantly influence offline purchases, while convenience and price comparison drive online shopping. The study recommends that jewellery retailers adopt an integrated omnichannel strategy to enhance consumer experience.

This study aims to investigate the factors that affect consumers' decision to buy jewellery online or offline. The study focuses on identifying important elements that influence decision-making, including perceived risk, product variety, price perception, convenience, trust, and overall customer experience.

Trust is one of the key elements affecting the channel choice of consumers. Customers are cautious when buying jewellery because it is regarded as a high-value and emotionally significant product. Because they can physically examine the jewellery, confirm its authenticity, and speak with the salesperson, many customers still favour physical stores. Additionally, physical stores guarantee quality certification, return guidelines, and post-purchase services. Online platforms, on the other hand, make an effort to foster trust by providing transparent return policies, safe payment methods, customer reviews, and product certifications. Despite these initiatives, some customers are still reluctant to buy jewellery online because they are worried about fraud, mismatched products, or delivery problems.

Another significant element influencing channel selection is convenience. The benefit of using online platforms is that you can browse and buy products from anywhere at any

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time without having to go to a physical store. Through digital platforms, consumers can swiftly compare various designs, costs, and brands. Younger customers and tech-savvy people are drawn to this convenience. However, there are benefits to offline shopping as well, including the opportunity to try on jewellery before making a purchase, personalized assistance, and instant product availability. Customers who appreciate face-to-face communication and tangible product verification are still drawn to these features.

Apart from the above factors, other demographic and behavioural factors that may affect the choice of the consumer channel include the age of the consumer, the income level of the consumer, the education level of the consumer, and the familiarity of the consumer with technology. For instance, younger consumers may be more comfortable with online jewellery channels because they are familiar with technology.

The study highlights the changing trends in consumer behaviour in the jewellery market as both online and offline purchasing channels continue to grow. Traditionally, consumers preferred offline jewellery stores because they provide the opportunity to physically examine the product, ensure its quality, and build trust with the seller. However, the growth of digital technology and e-commerce platforms has made online jewellery shopping more popular, especially among younger and technologically aware consumers. Online platforms offer several advantages such as convenience, wider product variety, easy price comparison, and attractive discounts.

Keywords: Consumer behaviour, Channel choice, Online jewellery shopping, Offline retailing, Purchase decision

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PROBLEMS AND PROSPECTIVES OF WOMEN ENTREPRENEURS: A STUDY WITH REFERENCE TO SMALL SCALE BUSINESS IN CHENNAI CITY.

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ABSTRACT

In the small-scale sector, women entrepreneurs continue to encounter numerous challenges in establishing and sustaining their enterprises, despite the fact that they play a critical role in the economic development of any nation. The objective of this investigation is to investigate the challenges and opportunities faced by female entrepreneurs in small-scale enterprises in Chennai. This research endeavors to comprehend the challenges that women face in their entrepreneurial endeavors by examining critical factors, including financial constraints, lack of access to markets, socio-cultural barriers, regulatory challenges, and talent development.

The research employs a mixed-methods approach, combining qualitative and quantitative data obtained through structured questionnaires and interviews with female entrepreneurs. The research also investigates the role of government policies, financial institutions, and support networks in enabling women-led enterprises. Furthermore, it assesses the prospective opportunities for women entrepreneurs, including government initiatives that promote women's economic participation, emerging market trends, and digitalization.

The results of this study underscore the adaptability and resilience of female entrepreneurs in the face of a variety of obstacles. The research indicates that women's entrepreneurial success can be considerably enhanced through targeted interventions, such as mentorship opportunities, financial literacy programs, and easier access to technology. Women entrepreneurs in Chennai's small-scale business sector can make a substantial contribution to economic development and social empowerment by overcoming the obstacles and capitalizing on the opportunities. This research offers practical recommendations to establish an enabling environment for women-led businesses, providing valuable insights for policymakers, business support organizations, and aspiring women entrepreneurs.

Keywords: Women entrepreneurs, small-scale businesses, Chennai city, financial constraints, socio-cultural barriers, regulatory challenges, government policies.

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LEADERSHIP DEVELOPMENT FOR SUSTAINABLE MANAGEMENT PRACTICES

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ABSTRACT

Sustainable management has become an essential priority for organizations due to increasing environmental challenges, social responsibility, and economic pressures. Leadership plays a crucial role in promoting sustainable practices within organizations. Effective leadership development programs help managers and employees adopt environmentally responsible and socially conscious strategies. This paper examines the importance of leadership development in implementing sustainable management practices. The study explores leadership competencies, organizational strategies, and training approaches that encourage sustainability-oriented decision-making. The research adopts a descriptive methodology using secondary data sources such as journals, reports, and sustainability frameworks. The findings indicate that leadership development programs significantly influence sustainable organizational culture, innovation, and long-term business performance. The study concludes that organizations should invest in leadership training, ethical decision-making, and sustainability-focused strategies to achieve sustainable development goals.

Keywords: Leadership development, Sustainable management, Organizational sustainability, corporate responsibility, Sustainable leadership.

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**GREEN FINANCE AS A CATALYST FOR RURAL TRANSFORMATION:
EVIDENCE FROM THE SHIRPUR DEVELOPMENT MODEL TOWARDS
ACHIEVING SDGS 4, 6, AND 8**

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ABSTRACT

Green finance refers to financing projects that are environmentally friendly and socially inclusive. Green finance plays an important role in funding projects designed to support environmentally sustainable development and socially inclusive development. This research aims to present a case study of how the principles of green finance led to the integrated rural transformation (what "integrated rural transformation" means is not clear) of an area using the Shirpur Development Model in Dhule District in Maharashtra, India. The Shirpur Development Model is aligned to UN Sustainable Development Goals (UN SDGs) 1) SDG #4 Quality Education; 2) SDG #6 Clean Water and Sanitation; and 3) SDG #8 Decent Work and Economic Growth. A mixed-methods approach was used to provide an overall understanding of how the Shirpur Model of water conservation, education financing (infrastructure), and industry benefits from investments made by green finance collectively transformed a drought-stricken region of the Indian subcontinent to a thriving rural region with a significantly increased economy. Specifically: Water quality increased by 95%; Irrigation areas were increased by 158%; Industry-related employment increased by approximately 1,150 jobs; and Student enrolment increased by 700 students. The Shirpur Model provides an example of an effective rural development practice as well as actionable policy recommendations for replicating this practice throughout rural communities in developing countries.

Keywords: Green Finance, Shirpur Development Model, UN SDG #4, UN SDG #6, UN SDG #8, Integrated Rural Transformation, Sustainable Development, Maharashtra, India.

“Green Finance, Scientific Innovation and Sustainable Development Goals: Pathways to a Resilient Future” (IC-GFSI-SDG- NEXGEN 2026)

**EMPLOYEE WELLNESS AND SUSTAINABLE WORK ENVIRONMENTS:
STUDY OF ORGANISATIONAL PRACTICES AND EMPLOYEE WELL-BEING**

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ABSTRACT

Employee wellness has emerged as a central concern in contemporary organisations striving for long-term sustainability. Beyond financial performance, firms increasingly recognise that healthy, engaged, and psychologically secure employees contribute significantly to organisational resilience. This study explores the relationship between employee wellness initiatives and the development of sustainable work environments. Based on primary data collected from 120 employees across diverse industries, the research examines how workplace wellness programs influence job satisfaction, productivity, and organisational commitment. The findings reveal a significant positive association between structured wellness practices and employees perceived well-being and engagement levels. The study argues that employee wellness is not merely a human resource intervention but a strategic pillar of sustainable organisational development.

Keywords: employee wellness, sustainable workplace, organisational well-being, work environment, employee engagement, HR strategy

“Green Finance, Scientific Innovation and Sustainable Development Goals: Pathways to a Resilient Future” (IC-GFSI-SDG- NEXGEN 2026)

FINANCIAL TECHNOLOGY (FIN-TECH) ADOPTION AND FINANCIAL INCLUSION AS DRIVERS OF SUSTAINABLE DEVELOPMENT AMONG STUDENTS

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ABSTRACT

Financial Technology (Fin-tech) has emerged as a transformation force in the modern financial system, enabling easier access to financial services through digital platforms. Among young individuals, particularly students, Fin-tech applications such as digital payments, mobile banking, and online investment platforms have significantly enhanced financial accessibility and convenience. The adoption of these technologies plays a vital role in promoting financial inclusion, particularly for individuals who previously had limited access to traditional banking services.

This study aims to examine the relationship between Fin-tech adoption, financial inclusion, and sustainable development among students. Fin-tech innovations contribute to broader Sustainable Development Goals (SDGs) by improving financial accessibility, promoting economic participation, and supporting inclusive digital financial ecosystems. In particular, Fin-tech supports SDG 8 – Decent Work and Economic Growth by enabling greater participation in economic activities, SDG 9 – Industry, Innovation and Infrastructure through the development of digital financial technologies, and SDG 10 – Reduced Inequalities by expanding financial services to underserved populations.

The study adopts a descriptive research design and collects primary data from students using a structured questionnaire. The findings are expected to highlight how Fin-tech adoption among students supports financial inclusion and contributes to sustainable economic development. The research also emphasizes the importance of digital financial awareness, financial literacy, and policy support to strengthen the role of Fin-tech in achieving inclusive and sustainable development outcomes.

Keywords: FinTech Adoption, Financial Inclusion, Sustainable Development, Digital Financial Services, Student Financial Behaviour, Financial Literacy.

“Green Finance, Scientific Innovation and Sustainable Development Goals: Pathways to a Resilient Future” (IC-GFSI-SDG- NEXGEN 2026)

PSYCHOLOGICAL IMPACT OF NEGATIVE ONLINE REVIEWS ON CONSUMER TRUST AND HOTEL BOOKING BEHAVIOUR

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ABSTRACT

Online reviews play a crucial role in shaping consumer perceptions and influencing hotel booking decisions in the hospitality industry. Negative online reviews, in particular, create a strong psychological impact on potential travelers by increasing perceived risk and reducing consumer trust. This study examines the psychological impact of negative online reviews on consumer trust and hotel booking behaviour among tourists visiting popular destinations in Tamil Nadu such as Ooty, Kodaikanal, and Madurai. The study adopts a quantitative research design, and primary data were collected using a structured questionnaire from 200 respondents who frequently use online platforms to book hotels. Statistical techniques such as descriptive statistics, reliability analysis, correlation analysis, regression analysis, and structural equation modelling were used for data analysis. The results indicate that negative online reviews significantly affect consumer trust and reduce hotel booking intentions. However, credible and detailed reviews can moderate this effect by enhancing transparency and reliability. The study highlights the importance of effective online reputation management for hotels in major tourist destinations to maintain customer trust and improve booking behaviour.

Keywords: Negative Online Reviews, Consumer Trust, Hotel Booking Behaviour, Online Reputation Management, Tourism.

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GREEN STARTUPS AS DRIVERS OF SDG ACHIEVEMENT: AN EMPIRICAL ANALYSIS

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ABSTRACT

As the world moves into the "Decade of Action" for the 2030 Agenda, private sector innovation is no longer just a side player but has become a key force pushing change forward. Green startups are businesses that build environmental care right into what they do. They come up with ideas that can grow and help tackle some of the biggest environmental and social problems we face. This paper looks at how green entrepreneurship ties into the Sustainable Development Goals (SDGs). This study looks at 1,200 impact-tech startups from around the world to see how they help push forward progress in Clean Energy (SDG 7), Responsible Consumption (SDG 12), and Climate Action (SDG 13). The findings show that green startups have a lot of impact but run into big problems with getting funding and dealing with rules and classifications that keep them from reaching their full potential.

Keywords: Green Entrepreneurship, Sustainable Development Goals (SDGs), Impact-Tech Startups, Clean Energy and Climate Action, Sustainable Innovation

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MSMES AND ACCESS TO GREEN FINANCING: OPPORTUNITIES, CHALLENGES AND POLICY IMPLICATIONS

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ABSTRACT

Micro, Small and Medium Enterprises (MSMEs) play a significant role in global economic development by contributing to employment generation, innovation, and industrial growth. Globally, MSMEs represent nearly 90 percent of businesses and account for about 60–70 percent of employment, making them a vital component of national economies. However, the increasing concerns regarding climate change and environmental sustainability have created the need for businesses to adopt greener practices. Green financing has emerged as an important mechanism to support environmentally sustainable investments such as renewable energy adoption, energy-efficient technologies, and sustainable production processes. Despite its importance, MSMEs often face considerable barriers in accessing green finance due to limited financial resources, lack of awareness, high initial investment costs, and stringent lending requirements from financial institutions. As a result, many MSMEs continue to rely on traditional energy sources and environmentally unsustainable production methods. Green financial instruments such as green bonds, green loans, and Environmental, Social and Governance (ESG)-linked financing provide opportunities for MSMEs to transition towards sustainable business models while maintaining economic competitiveness. This paper examines the opportunities and a challenge faced by MSMEs in accessing green financing and highlights the policy implications necessary to promote sustainable financial support systems. Strengthening financial accessibility, improving awareness, and encouraging government and institutional support are essential for enabling MSMEs to contribute effectively to environmental sustainability and global climate goals.

Keywords: MSMEs, Green Financing, Sustainable Development, Climate Finance, ESG, Environmental Sustainability

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APPLICATION OF BLOCKCHAIN TECHNOLOGY IN EDUCATIONAL SYSTEMS: A DESCRIPTIVE STUDY

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ABSTRACT

Blockchain is an emerging technology that has gained significant attention in recent years due to its decentralized, transparent, and secure nature. Many organizations are adopting Blockchain technology to manage confidential information because it ensures secure, tamper-proof, and immutable record maintenance. Blockchain enables digital data to be stored and shared across distributed networks while preventing unauthorized modifications.

This technology is widely used in industries such as finance, healthcare, banking, e-commerce, and government services. It has already transformed financial transactions through cryptocurrencies such as Bitcoin. Similarly, Blockchain has the potential to significantly transform the education sector by improving transparency, security, and trust in academic record management.

In educational systems, Blockchain can be used for secure storage of student records, digital degree certification, academic transcript verification, and research documentation. It can also streamline administrative processes, simplify hiring verification for employers, and provide students with lifelong ownership of their academic credentials.

This research paper explores the implementation of Blockchain technology in educational systems, focusing on student record management, digital certification, curriculum documentation, and research record maintenance. The study aims to highlight the potential benefits and opportunities of Blockchain adoption in universities and academic institutions.

Keywords: Blockchain, Bitcoin, Educational System, Student Records, Digital Certificates, University Administration.

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**FROM INDIGENOUS COSMOLOGY TO GLOBAL SUSTAINABILITY:
RE-READING MAMANG DAI THROUGH THE
SUSTAINABLE DEVELOPMENT GOALS**

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ABSTRACT

Escalating climate change and loss of biodiversity and ecosystems are creating a stronger focus and commitment to the Sustainable Development Goals (SDGs) globally. In contrast to most contemporary environmental policies, there is a growing appreciation of the value of Indigenous ecological knowledge systems. Indigenous communities around the world, through their own cultural traditions, spiritual beliefs, and subsistence practices, historically maintained a balanced relationship with nature, developed an ecological harmony and environmental stewardship. In many instances, literary works arising from these contexts are carriers of important environmental information, knowledge, and sustainable world views. This paper aims to examine the ecological perspective of Mamang Dai in *The Sky Queen*, *Once Upon a Moontime*, *The Legends of Pensam*, and *The Black Hill*. Dai articulates the Indigenous cosmology of the Adi tribe of Arunachal Pradesh, and positions nature as a sacred, and active, presence that forms the core of the cultural identity, spiritual beliefs, and livelihood practices of the people.

The main aim of the study is to examine how the narratives by Dai can express Indigenous environmental ethics and the role of these attitudes in the modern sustainability models in relation to SDGs. The research is especially interested in SDG 13 (Climate Action), SDG 15 (Life on Land), and SDG 12 (Responsible Consumption and Production) through the study of how the Indigenous ecological values that support environmental conservation, biodiversity protection, and sustainable management of resources. Literary works by Mamang Dai subvert the anthropocentric modes of development through an ecological version of the world where human beings exist in harmony with nature based on respect, reciprocity and balance.

The study is based on interdisciplinary approach to use Cultural Ecology, Functionalism, Cultural Materialism and Deep Ecology to explain the ecological aspects of the texts of Dai. The cultural Ecology is applied to examine the relationship that exists between the cultural practices of the Adi community and their natural environment. The functionalism assists in the understanding of how myths, rituals and oral traditions serve as mechanisms to maintain harmony in the ecological environment of the community. Cultural Materialism emphasizes the importance of subsistence lifestyles including shifting

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cultivation, hunting and river livelihood that are indicators of sustainable resource utilization and consciousness of the environment. The Deep Ecological philosophical framework adds another strong point to the analysis by highlighting the intrinsic worth of all life on the Earth and ecosystems that are not dependent on their economic usefulness.

As it is seen in the analysis, the works of Dai serve as the cultural preservation and ecological activism. In her stories, she describes sacred landscapes, forests, rivers and mountains as living things which are embedded deep in the Adi cosmological belief system. Harmony between humans and nature is represented by the Donyi-Polo spiritual philosophy worshipping the sun and the moon as the forces that guide people and ensuring an ethical duty towards the environment protection. Individual representations provide light to Indigenous ecological practices, which are effective in the conservation and sustainable life of biodiversity, which is well aligned with SDG 15 and SDG 13.

Moreover, this paper claims that the writings of Dai are critical of the ecological impacts of colonial intrusion, modernization as well as unsustainable development practices that break the conventional ecological balance. Indigenous knowledge systems and sacred relations with nature are foregrounded in her works, creating alternative approaches to environmental stewardship which have become relevant and appealing to modern sustainability models. These stories make it clear that environmental protection is not only a technological or economic issue, but a cultural and moral one.

These results indicate that the Indigenous literary narratives may add value to the sustainability discourse by providing culturally oriented interpretations of the environmental conservation and climate resilience. By incorporating this kind of ecological knowledge in the global sustainability plans, the policy frameworks can be strengthened, community-based conservation will be enhanced, and environmentally friendly development will be boosted. By her literary experience of the natural environment and culture, Mamang Dai offers a valuable interdisciplinary insight into the Indigenous ecological experience and the global quest to sustainable futures.

Keywords: Indigenous Ecology, Sustainable Development Goals, Cultural Ecology, Environmental Ethics

BOOSTED ML METHODS FOR HEART DISEASE PREDICTION

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ABSTRACT

This paper presents an extensive heart disease detection deployed using Machine Learning models to implement with python libraries. The core work of the system is to identify the heart disease diagnosis in an earlier stage to save the patients. This study focuses on certain parameters like the patients age, gender, chest pain type, blood pressure, cholesterol level, glucose level, blood sugar, ECG results, smoking habit, alcoholic consumption, physical activity and the maximum heart rate achieved in the Kaggle Heart Disease Prediction Dataset of UCI Machine Learning repository. Machine Learning (ML) models such as Logistic regression, Support Vector Machine and Ensemble Learning techniques – Random Forest with Boosting are evaluated to determine the cardiovascular disorders for the patient. Ensemble Learning models achieve the highest prognostic accuracy, reduce misclassification rate, minimum overfitting and good reliability. Furthermore, the system develops the performance by using the machine learning based diagnosis models for signifying the patient in benign or malignant stage to contribute the improved health management.

Keywords: Machine Learning (ML), Support Vector Machine, Ensemble Learning Models, Heart disease, Python Libraries.

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GAMIFICATION AS A TOOL FOR ENHANCING SUSTAINABLE CUSTOMER ENGAGEMENT IN MARKETING

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ABSTRACT

Gamification is a powerful marketing strategy that uses elements of games in non-gaming settings to boost customer participation and engagement. Marketers are searching for innovative strategies to encourage eco-friendly buying practices as sustainability becomes more visible globally. This study looks into how gamification might increase consumers' long-term marketing engagement. The study investigates how gamified features, such as leaderboards, challenges, badges, points, and rewards, affect consumers' inclination to participate in activities linked to sustainability. based on the results. Gamification significantly boosts customer engagement while positively influences consumers' inclination to embrace sustainable products and activities. The report highlights the potential benefits of gamified marketing strategies. The study highlights how gamified marketing strategies may encourage eco-friendly consumption and enhance brand-customer connections. Additionally, the results provide information about their marketing strategies.

Keywords: Gamification, Sustainable Marketing, Customer Engagement, Sustainable Consumer Behavior, Digital Marketing, Environmental Sustainability, Consumer Motivation.

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A STUDY ON ENTREPRENEURIAL ATTITUDES AMONG COLLEGE STUDENTS IN CHENNAI

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ABSTRACT

Through fostering innovation and generating job opportunities, entrepreneurship helps significantly to economic development. Several colleges and universities have begun pushing students to learn how to be entrepreneurs and launch their own companies in recent years. A student's favorable or adverse thoughts and emotions toward launching and running a business are referred to as their entrepreneurial mindset. Students are more likely to launch their own businesses in the future if they have an optimistic mindset toward entrepreneurship. The goal of this study is to determine what influences Chennai college students' interest in entrepreneurship by examining their entrepreneurial mindsets.

Keywords: Entrepreneurship, Entrepreneurial Mindset, Entrepreneurial Intention, College Students, Economic Development, Start-up Motivation, Self-Employment, Higher Education, Innovation, Chennai.

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LINKAGE ESG PERFORMANCE WITH EMPLOYEE PERFORMANCE APPRAISAL

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ABSTRACT

Environmental, Social, and Governance (ESG) practices have become an essential component of modern organizational strategies aimed at achieving sustainability and responsible corporate behavior. Organizations are increasingly recognizing the importance of integrating ESG principles into their internal management systems, particularly within employee performance appraisal frameworks. This study examines the linkage between ESG performance and employee performance appraisal and highlights how sustainability-related criteria can be incorporated into employee evaluation processes.

The objective of the study is to understand how ESG indicators such as environmental responsibility, ethical conduct, social contribution, teamwork, and diversity can be integrated into appraisal systems to influence employee performance. By aligning employee performance metrics with ESG goals, organizations can encourage responsible workplace behavior and strengthen accountability among employees. Such integration helps employees understand their role in achieving broader organizational sustainability objectives.

The study adopts a conceptual approach based on a review of existing literature related to ESG practices, sustainable human resource management, and performance appraisal systems. The findings suggest that linking ESG performance with employee appraisal not only improves employee engagement and motivation but also enhances organizational transparency, ethical governance, and long-term sustainability. Overall, the integration of ESG metrics into performance appraisal systems supports responsible organizational growth and sustainable value creation.

Keywords: ESG Performance, Employee Performance Appraisal, Sustainability, Corporate Governance

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ROLE OF EMOTIONAL INTELLIGENCE IN AI CHATBOTS FOR ENHANCING CUSTOMER ENGAGEMENT IN FINTECH

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ABSTRACT

The rapid growth of digital financial services has transformed the way individuals access banking and financial products. However, many users—particularly those with limited financial literacy still face challenges in navigating digital platforms. Emotion-aware chatbots powered by Artificial Intelligence offer a promising solution by recognizing user emotions and responding with empathetic and personalized assistance. These intelligent systems can guide users through financial services, improve engagement, and reduce barriers to accessing financial information. This study explores the role of emotion-aware chatbots in enhancing financial accessibility on FinTech platforms. By analyzing user perceptions and the effectiveness of emotionally responsive chatbot interactions, the research highlights how such technologies can support inclusive financial services. The findings emphasize that integrating emotional intelligence into chatbot design can improve customer satisfaction, trust, and accessibility, ultimately contributing to broader goals of digital financial inclusion and improved user experience in modern financial ecosystems.

Keywords: Emotion-Aware Chatbots, FinTech, Artificial Intelligence, Financial Accessibility, Digital Financial Inclusion

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**THE SUSTAINABLE DEVELOPMENT GOALS REPORT 2025
– A SPECIAL REFERENCE TO CLIMATE CHANGE**

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ABSTRACT

Climate change is accelerating, with 2024 marking the hottest year on record, at approximately 1.55°C above pre-industrial levels. Extreme weather is intensifying, driving the highest climate-related displacement in 16 years and worsening food insecurity, economic losses and instability. Although one year above 1.5°C does not mean the Paris Agreement has been breached, it serves as a clarion call for increasing ambition and accelerating action in this critical decade, as current global efforts fall far short of what is needed.

The upcoming global climate summit is a critical opportunity to course-correct, by advancing recently agreed climate finance goals, strengthening multilateral cooperation and delivering ambitious national climate plans across all sectors to reach net-zero emissions by 2050. Momentum is growing, including a recent global landmark deal on shipping emissions with a net-zero pathway and increasing support for initiatives such as Early Warnings for All.

Keywords: SDG, Climate

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DIGITAL HR TRANSFORMATION FOR SUSTAINABLE PAPERLESS ADMINISTRATION: A SYSTEMATIC LITERATURE REVIEW (SLR)

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ABSTRACT

The rapid evolution of digital technologies has transformed organizational functions across industries, with Human Resource Management (HRM) being one of the most impacted domains. Traditional HR systems, once reliant on manual processes, paper-based documentation, and face-to-face interactions, are increasingly being replaced by digital HR systems that emphasize automation, analytics, and paperless administration (Strohmeier, 2007; Bondarouk & Ruël, 2009). This article explores the transformation journey from traditional HR practices to digital HR systems, highlighting the drivers of change, challenges encountered, and the benefits realized. The findings reveal that organizations adopting digital HR systems experience improved employee engagement, streamlined workflows, and enhanced decision-making capabilities (Marler & Fisher, 2013; Rasmussen & Ulrich, 2015).

Keywords: Digital HR, Paperless Administration, Human Resource Transformation, HR Technology, Automation, Employee Engagement, HR Analytics, Organizational Change.

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**ENVIRONMENT DATA VALIDATION AND QUALITY ASSURANCE
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ABSTRACT

Environmental monitoring systems generate vast amounts of data used for environmental management, sustainability planning, and policy implementation. However, environmental datasets frequently suffer from inconsistencies, missing values, measurement errors, and lack of standardized quality assurance procedures. These issues reduce the reliability of environmental decision-making and sustainability assessments. This conceptual study examines environmental data validation and quality assurance (QA) techniques and the role of policy frameworks in improving environmental data reliability. The study reviews recent literature from the past five years to identify emerging validation techniques such as machine learning-based data cleaning, sensor validation frameworks, and statistical quality control. Based on the literature synthesis, a conceptual framework linking environmental monitoring systems, data validation techniques, quality assurance policies, and environmental decision-making is proposed. The study highlights that effective data validation combined with robust QA policies significantly enhances the credibility of environmental monitoring systems and sustainability reporting. Key objectives: To examine the techniques used for environmental data validation and quality assurance in environmental monitoring systems. To analyze the role of policies and institutional frameworks in ensuring environmental data quality and reliability.

Keywords: Environmental data validation, Quality assurance, Environmental monitoring, Data quality management, Environmental policies.

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ABSTRACT

Environmental sustainability has become an important part of modern business practices. Companies are increasingly expected to reduce their environmental impact while maintaining strong financial performance. This study examines the relationship between Corporate Environmental Sustainability Performance (CESP) and Sustained Financial Performance (SFP) among selected companies. It also highlights how corporate sustainability practices contribute to global goals promoted by the United Nations, particularly Sustainable Development Goal 12 and Sustainable Development Goal 13. Previous studies suggest that companies adopting environmental sustainability practices often achieve better long-term financial performance. Reducing energy use, emissions, and water consumption can improve operational efficiency and reduce costs. The study focuses on selected non-financial and non-service companies from the NSE 50 index across sectors such as Chemicals, Metals, Oil & Gas, FMCG, Healthcare, Automobiles, Cement, and diversified sectors. However, the study mainly considers environmental indicators and does not include all social and governance factors. The study is based on secondary data collected from company annual reports and sustainability reports. Environmental performance is measured through greenhouse gas emissions, energy consumption, and water usage intensity. Financial performance is analysed using indicators such as ROE, ROA, Price-to-Book ratio, and Tobin's Q. Correlation and regression analysis are used to examine the relationship between sustainability and financial outcomes. The results show a moderate positive relationship between sustainability performance and financial performance.

Keywords: Environmental Sustainability, Financial Performance, Corporate Sustainability Practices.

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ABSTRACT

Sustainability has become a critical focus for organizations due to increasing environmental concerns, resource scarcity, and global sustainability commitments such as the Sustainable Development Goals (SDGs). Organizations are now expected to integrate environmental, social, and economic considerations into their business strategies. Many organizations adopt sustainability practices but lack proper indicators to measure their effectiveness. Without well-defined sustainability indicators, it becomes difficult to assess progress, compare performance, or identify areas for improvement. This creates challenges in implementing Green HRM policies effectively and ensuring long-term sustainable organizational development.

Previous studies highlight the growing importance of sustainability measurement in organizations. Researchers have emphasized the role of sustainability indicators in evaluating environmental performance, resource utilization, and employee participation in green practices. Literature also suggests that integrating sustainability indicators within HR policies can enhance organizational accountability, promote eco-friendly behavior among employees, and support strategic decision-making for sustainable growth. This study follows a conceptual research approach based on secondary data collected from journals, research articles, reports, and published literature related to sustainability and development. The study analyzes different sustainability indicators and explores their relevance in evaluating sustainable organizational practices. The study finds that sustainability indicators play a significant role in measuring and improving organizational sustainability performance.

Keywords: Environmental Indicators, Organisational responsibility, performance measurement, Human Development, Global Sustainability, business strategies.

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CLIMATE RISK MODELLING AND ENVIRONMENTAL FORECASTING

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ABSTRACT

Climate change has increased the frequency and intensity of environmental risks such as floods, droughts, heatwaves, and extreme weather events. Climate risk modeling and environmental forecasting have become essential tools for predicting these risks and supporting sustainable decision-making. This conceptual study examines recent developments in climate risk modeling and environmental forecasting, identifies research gaps, and proposes a conceptual framework for integrating climate risk analytics with environmental forecasting systems.

The study aims to examine recent developments in climate risk modeling and environmental forecasting, identify challenges and research gaps in integrating these systems and develop a conceptual framework linking them to sustainable environmental decision-making.

The study reviews recent literature from the past five years and highlights the importance of predictive analytics, artificial intelligence, and data-driven forecasting models in improving environmental resilience. We suggest that, governments should invest in AI-driven climate forecasting systems to strengthen disaster preparedness. Climate researchers should develop more interpretable AI models to support effective policy adoption. International organizations need to encourage data sharing and develop global climate databases. Future studies should focus on empirical research using real-time climate datasets, while stronger collaboration among climate scientists, data scientists, and policymakers is essential for improving climate risk management.

Keywords: Climate risk modeling, environmental forecasting, climate change, predictive analytics, sustainability.

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WOMEN ENTREPRENEURSHIP IN GREEN AND SUSTAINABLE VENTURES

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ABSTRACT

Women entrepreneurship has emerged as a significant contributor to sustainable development and environmental innovation. In recent years, the integration of women-led enterprises with environmentally responsible and socially inclusive business practices has gained increasing attention among researchers, policymakers, and development organizations. Women entrepreneurs play a vital role in promoting sustainable production systems, eco-friendly products, resource efficiency, and community-oriented business models. Their ventures often combine economic growth with environmental protection and social well-being, thereby contributing to the achievement of the Sustainable Development Goals (SDGs).

Despite the increasing recognition of their contributions, women entrepreneurs continue to face multiple barriers in establishing and scaling green ventures. Limited access to finance, lack of institutional support, socio-cultural constraints, and restricted access to networks and technology remain major challenges that hinder their participation in sustainable entrepreneurship. At the same time, the growing demand for environmentally responsible products and supportive government policies provide new opportunities for women-led green enterprises. This conceptual study examines the role of women entrepreneurs in promoting green and sustainable ventures by synthesizing relevant literature from the past five years. The study identifies key factors influencing women's engagement in green entrepreneurship, including entrepreneurial motivation, sustainability orientation, institutional support, and access to resources.

Keywords: Women Entrepreneurship, Green Entrepreneurship, Sustainable Development.

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CLIMATE RISK MODELING AND ENVIRONMENTAL FORECASTING

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ABSTRACT

Environmental safety and operational reliability are paramount in the expansion of City Gas Distribution (CGD) networks across India. As the nation transitions toward a gas-based economy, the increasing complexity of urban pipeline infrastructure presents significant risks related to leakages, fire hazards, and potential ecological damage. Conventional risk management strategies often lack the foresight required to mitigate these threats effectively.

This study examines the role of Predictive Risk Modeling in enhancing the environmental safety and sustainability of Indian CGD systems. By integrating advanced financial mechanisms and data-driven analytical frameworks, the research explores how predictive models can preemptively identify vulnerabilities, improve resource efficiency, and support long-term ecological balance. The study adopts a conceptual and analytical approach, drawing on secondary data and existing literature to evaluate the integration of safety-oriented innovations into distribution activities. The analysis highlights that the adoption of sophisticated risk modeling tools allows operators to move beyond reactive maintenance, fostering a culture of sustainable entrepreneurship within the energy sector. By directing resources toward environmentally friendly innovations and robust safety protocols, the CGD industry can align with broader sustainable development goals while ensuring urban environmental safety. Ultimately, this research underscores the necessity of proactive risk modeling as a cornerstone for the resilient and sustainable growth of India's energy infrastructure.

Keywords: Predictive Risk Modeling, Environmental Safety, City Gas Distribution (CGD), Sustainable Entrepreneurship, India.

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SUSTAINABLE INDICATORS DEVELOPMENT – A STUDY

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ABSTRACT

Sustainable development has become a major global priority due to growing environmental challenges, economic inequalities, and social concerns. Measuring progress toward sustainability requires well-structured and reliable indicators that capture the multidimensional aspects of development. Sustainable indicators play an important role in assessing environmental protection, economic performance, and social well-being, thereby assisting policymakers, governments, and organizations in making informed and strategic decisions. However, the development of standardized sustainability indicators remains a challenge because of differences in measurement frameworks, limited data availability, and varying priorities across countries and sectors.

This study aims to examine the key dimensions involved in sustainable indicator development, analyze recent research trends in sustainability measurement, and propose a conceptual framework that integrates environmental, economic, social, and governance indicators for effective sustainability assessment.

Keywords: Sustainable Development, Sustainability Indicators, Sustainable Indicator Development, Triple Bottom Line, Environmental Indicators, Sustainable Measurement.

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HUMAN RESOURCE MANAGEMENT AND GREEN PRACTICES

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ABSTRACT

Green Human Resource Management (GHRM) has gained increasing importance as organizations aim to achieve environmental sustainability and align their practices with the United Nations Sustainable Development Goals (SDGs). GHRM integrates eco-friendly policies into traditional HR functions such as recruitment, training, performance appraisal, and employee participation. These practices encourage employees to adopt environmentally responsible behavior and support organizational sustainability. In the current era of climate change and environmental challenges, the implementation of green HRM policies has become essential for promoting sustainable workplace practices and achieving SDGs such as responsible consumption, climate action, and sustainable economic growth.

The objectives of this study are to examine the awareness of green HRM policies among employees, to analyze the role of green HRM practices in promoting environmental sustainability, and to evaluate their contribution to achieving SDGs in organizations. The scope of the study focuses on employees working in selected organizations where green practices are implemented. However, the study is limited to a small sample size and relies on responses collected through a structured questionnaire. Recent literature within the last five years highlights that green HRM practices positively influence employee green behavior, organizational environmental performance, and sustainable development. Studies emphasize the importance of green training, green leadership, and employee participation in achieving sustainability goals. Despite these developments, several organizations still face challenges in fully integrating green HRM practices due to lack of awareness and limited policy implementation.

Keywords: Organizational Environmental Performance, Employee Green Behavior, Eco-centric HR Practices, Environmental Sustainability, Green Workforce Practices.

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CARBON FOOTPRINT MEASUREMENT TECHNIQUES

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ABSTRACT

Carbon footprint refers to the total amount of greenhouse gas emissions produced directly or indirectly by human activities, organizations, or products, usually expressed in carbon dioxide equivalent (CO₂e). In recent years, growing environmental concerns and climate change have increased the importance of accurately measuring carbon emissions. However, many industries and institutions face difficulties in identifying reliable and standardized methods for calculating their carbon footprint. Various techniques such as life cycle assessment, input–output analysis, carbon accounting frameworks, and emission factor methods have been discussed by researchers and environmental organizations to estimate emissions from energy use, transportation, production processes, and consumption patterns. The main purpose of studying carbon footprint measurement techniques is to understand the methods used to quantify emissions and to evaluate their effectiveness in environmental management and sustainability planning. This study mainly focuses on different measurement approaches used by organizations, governments, and researchers to assess environmental impact. The scope includes analyzing commonly used tools, indicators, and data sources, while limitations may arise due to lack of accurate data, variation in calculation standards, and differences in regional emission factors. The research is based on secondary data collected from research articles, sustainability reports, and environmental studies, and uses analytical methods to compare various techniques.

Findings indicate that inconsistency in data availability, lack of awareness, and complexity of measurement models create challenges in accurate carbon footprint estimation. Therefore, it is suggested that organizations adopt standardized frameworks, improve data transparency, and use digital monitoring tools to enhance accuracy. In conclusion, effective carbon footprint measurement techniques play a crucial role in environmental decision-making, helping organizations track emissions and contribute toward sustainable development and climate change mitigation.

Key words: carbon footprint measurement, greenhouse gas emissions, sustainability assessment, environmental impact, life cycle analysis, carbon accounting, climate change mitigation.

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SCIENTIFIC AUDITING OF GREEN FINANCE

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ABSTRACT

Scientific auditing is an important tool for verifying the environmental impact of green finance. Green finance refers to financial activities and investments that support environmentally friendly initiatives such as renewable energies, green transportation, water conservation and pollution control. It helps to balance economic goals with sustainable development, while scientific auditing evaluates and monitors whether these initiatives truly provide environmental benefits. By analyzing indicators like carbon emission reduction, resource conservation and pollution control. Through scientific auditing, researchers can assess the performance of green finance projects and confirm their contribution to sustainable development goals such as clean energy climate action and environmental protection.

Recent studies highlight the growing importance of green finance in promoting environmental sustainability and achieving global development goals. A systematic review by researchers on green finance and green growth found that financial instruments such as green bonds, Green loans and sustainable investment funds significantly support environmental protection and climate friendly economic development. The study emphasized that policies, technological innovation and financial mechanism strongly influence the effectiveness of green finance initiatives. This approach ensures transparency, accountability and effectiveness in use of green funds while supporting global sustainability objective likes climate action, clear energy and responsible resource management. By integrating, it helps policymakers, investors and organizations ensure that green finance initiatives genuinely promote long-term environmental and economic sustainability. The insights generated from this research contribute to a deeper understanding of how demographic, educational and behavioural factors shape the adoption of green finance.

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This finding suggest that scientific auditing enhance transparency, accountability and creditability by validating environmental outcomes and ensuring that financial investment align with sustainable development goals. Strengthening scientific auditing mechanism can further improve the mechanism of green finance and long-term environmental an economic development. This study examines the role of scientific auditing in assessing the effectiveness of green finance in supporting sustainable development. scientific auditing plays a crucial role in evaluating and verifying the environmental performance of green finance initiatives through systematic analysis, measurable indicators and evidence based assignments

In conclusion, scientific auditing of green finance ensures that financial investments truly support environmental sustainability. Through systematic evaluation and measurable indicators, it verifies whether green finance initiatives effectively reduce environment risks such as carbon emissions, pollution and resource depletion. Scientific auditing also improves the transparency, accountability and creditability in the use of Green funds. Furthermore, it supports global sustainability targets and sustainable development goals. Strengthening scientific auditing frameworks can enhance the creditability of green finance and promotes sustainable economic and environmental development.

Key words: Green finance, Scientific Auditing, Environmental Sustainability, Carbon Emission Reduction, Environmental Performance Evaluation, Green Bonds and Green funds, Climate Action.

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GREEN TECHNOLOGY PERFORMANCE EVALUATION METHODS

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ABSTRACT

The global manufacturing industry is changing because of the growing need for environmental protection and sustainability. Companies are now expected to follow environmental rules and meet customer demands for eco-friendly products. Because of this, Green Engineering and Sustainable Development have become important for improving production while protecting the environment. Green Engineering focuses on designing manufacturing processes that reduce environmental damage. It promotes energy efficiency, waste reduction, and the use of safe and renewable materials. By using cleaner production methods and eco-friendly product design, industries can reduce their carbon footprint while maintaining product quality and efficiency. Sustainable Development expands this idea by balancing economic growth, social responsibility, and environmental protection. In manufacturing, this means improving production without harming the ability of future generations to meet their needs. Practices such as resource conservation, waste reduction, and fair labor conditions support long-term industrial success.

The concept of Sustainable Green Development (SGD) combines green engineering and sustainable development. It aims to create manufacturing systems that are both economically profitable and environmentally responsible. This approach encourages the use of green technologies, circular economy principles, renewable energy, sustainable product design, and eco-friendly supply chains. This research examines how SGD practices affect the performance of manufacturing organizations. It includes a literature review and a survey of manufacturing units in North India. The study uses both quantitative and qualitative methods to analyze the relationship between SGD initiatives and organizational performance. The results show that sustainable practices such as environmental management and greenhouse gas reduction have a positive impact on production capacity, quality, and productivity. The study also proposes a model to help manufacturing companies adopt and prioritize sustainable practices effectively. Overall, the research highlights the importance of sustainable manufacturing and provides useful insights for industries, policymakers, and researchers who want to promote environmentally responsible production.

Key words: Green Engineering, Sustainable Manufacturing, Sustainable Green Development (SGD).

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PERFORMANCE APPRAISAL LINKED TO ESG

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ABSTRACT

Human resources management (HRM) plays a critical role in implementing ESG strategies because employees drive organizational sustainability initiatives. Among HR practices, performance appraisal systems are particularly important since they evaluate employee contributions, provide feedback, and align individual goals with organizational objectives. Traditional performance appraisal systems focus mainly on productivity and financial performance. However, modern organizations are increasingly integrating sustainability indicators into appraisal frameworks. The inclusion of ESG-related metrics encourages employees to adopt environmentally responsible behaviours, social responsibility initiatives, and ethical governance practices.

Despite the growing attention toward ESG, limited research has examined how performance appraisal systems can be explicitly linked with ESG policies. This study addresses this gap by developing a conceptual model explaining the relationship between performance appraisal systems and ESG-based organizational outcomes.

Key words: ESG Integration, Performance Appraisal, Human Resource Management (HRM), Sustainable HRM, Organizational Sustainability.

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DEMOCRATIZING SUSTAINABILITY

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ABSTRACT

Green finance refers to investments that support environmental protection and sustainable development. These investments usually go into projects such as renewable energy, clean water systems, sustainable agriculture, and other environmentally responsible initiatives. In the past, these kinds of projects were mainly funded by governments, large corporations, and institutional investors. This was mostly because they required large amounts of money and complicated financial processes that ordinary investors could not easily access.

However, the financial world has been changing quickly in recent years. A new idea known as democratizing sustainability is gaining attention. This simply means making sustainable investment opportunities available to everyone, not just big organizations. In other words, it allows ordinary individuals to participate in financing projects that help protect the environment.

Digital Financial Technologies, commonly called FinTech, are making this possible. Tools like mobile investment apps, robo-advisors, blockchain systems, and online investment platforms are making the investment process easier and more accessible. These technologies reduce many of the barriers that previously prevented individuals from investing in sustainable projects. Because of this, retail investors now have more opportunities to support environmental initiatives through their financial decisions.

Key words: Green Finance, FinTech, Sustainable Investment.

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ROLE OF GREEN FINANCE IN PROMOTING SUSTAINABLE ENTREPRENEURSHIP

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ABSTRACT

Environmental degradation, climate change, and the depletion of natural resources have become significant global challenges that threaten long-term economic and environmental sustainability. Addressing these issues requires innovative financial mechanisms that integrate environmental considerations into economic and business activities. In recent years, green finance has emerged as an important approach that promotes environmental responsible investments and supports sustainable development. Green finance refers to financial investments and financial services that support environmentally sustainable initiatives such as renewable energy, pollution control, and sustainable resource management. The objective of this study is to examine the role of green finance in promoting sustainable entrepreneurship. Sustainable entrepreneurship focuses on business activities that generate economic value while simultaneously addressing environmental challenges and supporting sustainable development. Green finance contributes to this process by directing financial resources toward environmentally responsible enterprises and encouraging entrepreneurs to adopt sustainable business models and environmentally friendly innovations. Financial institutions and investors play a crucial role in supporting such initiatives through responsible investment practices and environmentally oriented financial instruments. The study adopts a conceptual and analytical approach based on secondary data obtained from academic literature and sustainability-related sources.

Keywords: Green Finance, Sustainable Entrepreneurship, Environmental Sustainability, Green Investment, Sustainable Development.

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