



SUSTAINABLE
ECONOMIC AND MANAGEMENT
PRACTICES:
CHALLENGES AND FUTURE PROSPECTS

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Volume 2

**Sustainable Economic and Management
Practices Challenges and Future Prospects
Vol.2**



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Sustainable Economic and Management Practices Challenges and Future Prospects Vol.2

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Preface

Nowadays, growing environmental concerns in all sectors are increasing the demand for sustainable living practices that not only help to reduce pollution but also conserve natural resources like water and energy. The environment is an exhaustible resource that needs rational utilisation and protection of natural resources for the good of the earth, our environment, humanity, and all living things. This is a well-known fact, economic growth and environmental protection are inversely related to each other. Rising economic activities degrade the environment. Therefore, policymakers need to explore alternative measures and environmental policies that manage finite resources for an infinite population. In this context, Sustainable ‘Economic and Management Practises’ are the backbone of every nation. Economic agents, businesses and people who care about sustainability are less likely to encroach on the natural habitats of wild animals, helping protect our planet's biodiversity.

Keeping this crucial aspect of sustainable development, the book entitled “*Sustainable Economic and Management Practices: Challenges and Future Prospects*” discussed numerous sustainable practices related to economics and management doctrine that can contribute to achieve United Nations Sustainable Development Goals (UN-SDGs).

This book presents unique perspectives and dynamics that illuminate economic and management practices in the complete diaspora of sustainability. This book gives a holistic perspective of sustainability in terms of green building, ESG aspect of cryptocurrency, social entrepreneurship, energy economics, circular economy, green HRM practices, employee retention, green marketing, sustainable consumption & production and so forth.

Acknowledgement

With the grace of Almighty God and blessings of our parents, we are delighted to share the edited volume of the book. We would like to express our sincere gratitude to everyone who has contributed and made this book to be turned into reality. This edited book could never come into existence without their contribution and support.

Firstly, we are grateful to our esteemed authors for their insightful chapters that have enriched the content of this book.

We are further grateful to Emyreal Publishing house, Ghaziabad, India for the publication of this book within stipulated time. We as an editorial team has worked sincerely to navigate the challenges of this book. The finished result reflects our rigorous attention to detail, organizational prowess, and commitment to upholding high standards. We are thankful to our family and friends who have supported us in completion of this book. We also thank our colleagues and friends from academics and industry who have helped us in giving valuable suggestions whenever needed.

We humbly show our gratitude to each and every one who has supported the publication of this book.

Finally, we extend apology for errors or omissions, if any, in the book, as they are sheer unintentional.

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About the Editors



Dr. Namrata Anand, currently working as an Assistant Professor in the Department of Economics, Dayalbagh Educational Institute, Dayalbagh, Agra. Her research specialization is in International Economics, International Business, Development Economics and Sustainability. She has total 6 years of work experience. In academics she has excellence on International Economics, Microeconomics and Macro Economics. She consists of research experience from Indian Institute of Foreign Trade, an apex think tank of Ministry of Commerce and Industry. At IIFT, she has worked over various government and ministerial projects. In Academics she have experience of Manav Rachna International Institute of Research and Studies, Faridabad and The NorthCap University, Gurgaon. She has immense number of research papers and book reviews in esteemed journals, articles in magazines & newspapers and book chapters in book.



Dr. Saumya Sharma, in her pursuit of academic excellence, is a firm believer of knowledge upgradation. Apart from her double masters, she holds a doctorate degree from ICFAI University Dehradun in the field of training. Her academic and teaching interface, student engagement and research skills were honed during her work experience of 10 years in the field of higher studies with institutions like IMS Unison University, Kelvin Institute, UPES-Dehradun and ICFAI University- Hyderabad. At present, she is associated with The NorthCap University- Gurugram. Being an astute academician, her teaching skills have hovered around subjects like Organisational Behaviour, Human Resource Management, Career Management, Training & Development, Performance appraisal, Performance Management, Syndicate Learning Program, Industrial Management, Professional Ethics. Her area of research entails the domains of Organisational Commitment, Emotional Intelligence, Knowledge Management and others. Her extensive contribution towards numerous Books, Book chapters, journal articles, conference papers extends a vibrant reflection towards her widely ranging research interest.



Ms. Shikha Yadav is a dedicated and accomplished academician with a distinguished career spanning over 8 years in both academia and industry. With a profound commitment to her craft, she has earned her reputation as an esteemed academician. Ms. Yadav possesses a diverse background, having accrued invaluable expertise in Human Resources across a spectrum of industries, including Manufacturing, Telecom, and Education. Her proficiencies encompass the entire HR landscape, from Recruitment and Talent Management to Training & Development, Employee Engagement, and Employee Relations.

Having earned her UGC NET qualification in Labour Welfare, Industrial Relations, and Human Resource Management, Ms. Yadav exemplifies her dedication to continued learning and specialization. Her influence extends beyond her personal accomplishments to her role as an educator, where she has orchestrated and conducted numerous sessions, webinars, and seminars at both university and departmental levels. Ms. Yadav's dynamic prowess as a speaker is evidenced by her invitations to lead discussions on pertinent topics such as Emotional Intelligence and Entrepreneurship. She actively contributes to the academic community by participating in National and International Conferences, attending seminars, workshops, and Faculty Development Programs (FDPs). Her intellectual impact extends to her contributions as an author in internationally acclaimed publications, thereby solidifying her standing as an esteemed figure in academia and HR.

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Abbreviations

SDG	Sustainable Development Goals
SCP	Sustainable Consumption and Production
UNCED	United Nations Conference on Environment and Development
CE	Circular Economy
PAAS	Product as a Service
MDG	Millennium Development Goals
ETF	Exchange Traded Funds
IBM	International Business Machines
IT	Information Technology
FMCG	Fast Moving Consumer Goods
HUL	Hindustan Unilever Limited
TCS	Tata Consultancy Services
HRM	Human Resource Management
HR	Human Resources
GHRM	Green Human Resource Management
SAP	System, Applications and Products
EDP	Entrepreneurship Development Programme
MSDE	Ministry of Skill Development and Entrepreneurship
STEM	Science, Technology, Engineering and Mathematics
UPSC	Union Public Service Commission
CSE	Civil Services Examination
NITI	National Institution for Transforming India
ICICI	Industrial Credit and Investment Corporation of India
BPM	Business Process Management
PH	Potential of Hydrogen
BE	Blue Economy
OE	Ocean Economy
ME	Marine Economy
BG	Blue Growth

NIST	National institute of Standards and Technology
GDP	Gross Domestic Product
ESG	Environmental, Social, Governance
UNESCO	United Nations Educational, Scientific and Cultural Organization
RUSA	Rashtriya Uchcharat Siksha Abhiyaan
LCA	Life Cycle Assessment
USD	US Dollar
UN	United Nations
SMEs	Small and Medium sized Enterprises
CSR	Corporate Social Responsibility
NGO	Non-Government Organization
SEBI	Securities and Exchange Board of India
FSC	Forest Stewardship Council
BRSR	Business Reporting and Sustainability Reporting

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THE PATH TO SUSTAINABLE CONSUMPTION AND PRODUCTION: BALANCING PEOPLE, PLANET, AND PROFIT

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ABSTRACT

This research paper critically examines the dynamic landscape of sustainable consumption and production (SCP) to shed light on its significance, challenges, and potential pathways toward a more sustainable future. Through a comprehensive exploration of SCP principles, encompassing resource efficiency, circular economy strategies, and technology-driven innovations, this study elucidates the intricate connections between economic growth and environmental preservation. The study underscores the role of education, awareness campaigns, and behavioural change in cultivating sustainable practices at both individual and societal levels. Merging empirical findings with theoretical frameworks, this research paper illuminates potential synergies among economic prosperity, ecological conservation, and social equity.

Ultimately, this comprehensive analysis adds depth and nuance to the discourse on SCP, providing a robust foundation for policymakers, scholars, and practitioners to develop informed strategies for a future underpinned by sustainability and resilience.

Keywords: Sustainable Consumption, Sustainable Production, Circular Economy, Resource Efficiency, Environment.

1. INTRODUCTION

The concept of sustainable consumption and production (SCP) has gained significant attention in both academic and policy circles due to its potential to address pressing environmental and economic challenges. The link between unsustainable consumption and production patterns and environmental degradation was underscored by the United Nations Conference on Environment and Development (UNCED) in 1992. This seminal event emphasised that the continued deterioration of the global environment was primarily attributed to the unsustainable nature of consumption and production systems, particularly prevalent in industrialised nations.

Researchers and scholars have since explored various facets of SCP to identify strategies that mitigate adverse environmental impacts while ensuring economic growth. The interconnectedness between unsustainable consumption, resource depletion, and climate change has led to a growing body of literature that seeks to elucidate the pathways toward sustainable practices. Circular economy principles, such as resource efficiency, waste reduction, and material recycling, have emerged as key tenets in promoting sustainable production methods.

The role of policy frameworks in driving SCP initiatives has also garnered substantial attention. Governments and international organisations are increasingly recognizing the importance of regulatory measures that incentivize eco-friendly production processes and steer consumer behaviour toward more sustainable choices. The integration of SCP principles into the United Nations Sustainable Development Goals (SDGs), particularly Goal 12 (Responsible Consumption and Production), underscores the global commitment to address the challenges posed by unsustainable consumption and production patterns.

Furthermore, the potential of SCP to bridge economic growth and environmental preservation has led to its adoption in corporate sustainability strategies. Businesses are increasingly incorporating SCP principles to enhance efficiency, reduce waste generation, and appeal to environmentally conscious consumers. Research investigating the economic implications of SCP practices highlights the potential for cost savings, innovation, and market competitiveness.

However, challenges persist in translating SCP principles into tangible actions. Behavioural barriers, limited consumer awareness, and resistance to change are notable hurdles in shifting toward sustainable consumption patterns. Cultural, economic, and technological contexts also influence the feasibility of SCP implementation across different regions and industries.

In conclusion, the literature review reveals a growing consensus on the urgency to adopt SCP practices to mitigate environmental degradation while fostering economic growth. The intersection of policy interventions, corporate strategies, and consumer behaviours forms a complex web that requires multi-faceted solutions. The subsequent sections of this paper will delve into empirical analyses and potential strategies that contribute to the advancement of sustainable consumption and production practices.

2. LITERATURE REVIEW

O'Brien (1999) The responsibilities of developing a sustainable economy and safeguarding the opportunities and quality of life for future generations can no longer be evaded by society. The capacity to address these responsibilities in terms of creating sustainable products and establishing sustainable production systems lies within the capabilities of the industry. Also, New skills in sustainable technologies need to be cultivated, and fresh standards should be incorporated into the formulation and budgeting of products and procedures to account for their ecological impacts. The obligation to establish a societal environment conducive for companies to address their obligations without forfeiting competitive edge rests with governments. Initiatives aimed at enhancing public awareness must be promoted to stimulate a fundamental reconsideration of the benchmarks against which consumers evaluate and subsequently acquire consumer goods.

Barbar (2007) Sustainable consumption is recognized as a catalyst for raising awareness and transforming the values and incentives that underpin consumer actions. This concept emerged in direct response to the pressing sustainability challenges that communities worldwide are confronting. Lewis et.al (2014) noted that a key role can be attributed to Sustainable Consumption and Production (SCP) within ongoing policy initiatives, such as those addressing climate change, biodiversity protection, and energy. It is also found that ensuring a proper reflection of SCP in the Sustainable Development Goals (SDGs) could amplify the focus directed toward the fundamental drivers of these global concerns.

Lukman et.al (2016) sustainable consumption entails adopting viable solutions that are pivotal in reshaping the patterns of both production and consumption.

Silva Cruz et.al (2016) From an organisational perspective, this notion is intertwined with sustainability and environmentally friendly technologies. These are employed in efforts to confer advantages upon companies, including enhancing their reputation and potentially reaping economic benefits.

Ming-Lang et.al (2018) Top-down sustainability efforts, as well as bottom-up initiatives, are presented and analysed in the articles concerning models, customer perceptions, business decision-making models, and proposed solution methods. A prevailing discovery suggests that the exploration of Sustainable Consumption and Production (SCP) issues in business decision-making models ought to be undertaken within diverse business contexts.

3. OBJECTIVES

1. To critically examine the landscape of sustainable consumption and production (SCP) to understand its significance, and potential pathways.
2. To explore the principles of SCP, including resource efficiency, circular economy strategies, and technological innovations, and their connections to economic growth and environmental preservation.

4. RESEARCH METHODOLOGY:

It is a descriptive study based on secondary data. It includes Conducting an exhaustive review of existing literature to comprehend the significance, challenges, and potential pathways within the domain of SCP. Also, Summarising key findings and deriving actionable recommendations for policymakers, industries, and individuals to advance SCP practices.

By employing this research methodology, the reviewed paper aims to provide a well-rounded and evidence-based exploration of sustainable consumption and production, contributing to the existing body of knowledge in this field.

The Linear Economy is a prevalent model in most market economies that follows a '**produce-use-dispose**' approach, emphasising profit maximisation and wasteful consumption. This leads to unsustainable resource usage, increased emissions, climate change, and ecological harm, and negatively impacts socio-economic development.

With the Earth's population growth driving higher resource demand for an acceptable standard of living, the concept of the **circular economy (CE)** has emerged as an alternative to the linear model. The CE adopts a closed, cyclical approach, resembling natural substance cycles, with the **principle of 'produce-use-return to the cycle of consumption-production.'**

Unlike the linear economy, a circular economy aims to produce goods and services while minimising resource use by designing products to be durable, maintainable, and reusable or recyclable. The idea is to retain materials and energy within the production and consumption systems, shifting the value chain of products and services towards circularity. The circular economy doesn't imply an absolute end to resource extraction and production but rather emphasises a more sustainable and efficient approach to meet development needs.

Let's have a clear look. What is the Circular Economy?

The **Circular economy** is an economic framework that strives to eliminate waste and optimise resource utilisation through the establishment of a closed-loop system. Unlike the conventional linear economy that adheres to a "take-make-dispose" approach, the circular economy is dedicated to the continual regeneration and reuse of materials, products, and resources.

5. KEY PRINCIPLES OF THE CIRCULAR ECONOMY INCLUDE:

Design for Durability: Goods are crafted with the intention of longevity and durability, thereby diminishing the necessity for frequent substitutions and mitigating waste generation.

Repair, Reuse, and Refurbish: Instead of discarding products, the circular economy encourages repair and refurbishment to extend their useful life. Reusing products or components for their original purpose or in other applications prevents unnecessary waste.

Recycling and Remanufacturing: Materials and components are recycled and reprocessed to create new products or inputs for production processes, reducing the demand for virgin resources.

Closed-loop Supply Chains: Supply chains are designed to ensure that products and materials are kept within the system and continuously reused, rather than being discarded after use.

Product-as-a-Service (PaaS): In some cases, the circular economy promotes shifting from a product ownership model to a service-based model. Instead of owning products, consumers access them through leasing, rental, or sharing arrangements, enabling manufacturers to retain ownership and responsibility for product maintenance and end-of-life management.

Biomimicry: Nature-inspired design principles are used to create products and systems that mimic natural cycles and processes, enhancing resource efficiency and sustainability.

The circular economy fosters innovation, job creation, and environmental preservation. It reduces the pressure on finite resources, minimises waste generation, and contributes to mitigating the environmental impacts of production and consumption. By transitioning to a circular economy, societies can work towards achieving sustainable development goals while fostering economic prosperity and environmental stewardship.

6. SUSTAINABLE CONSUMPTION:

Sustainable consumption refers to a responsible and mindful way of utilising goods and services that minimises negative impacts on the environment, society, and economy. It involves meeting current needs while ensuring the well-being of future generations and the preservation of natural resources.

The concept of sustainable consumption recognizes that traditional patterns of consumption, often characterised by excessive resource use and waste generation, are not viable in the long term. Instead, it advocates for more efficient and conscious use of resources, the promotion of eco-friendly products, and the adoption of practices that support social equity and environmental conservation.

Here are a few Habits that can be characterised as sustainable consumption:

1. **Reducing Single-Use Plastics:** Opting for reusable water bottles, coffee cups, and shopping bags to minimise plastic waste.
2. **Energy Conservation:** Turning off lights, appliances, and electronics when not in use and using energy-efficient lighting and appliances.
3. **Waste Reduction and Recycling:** Sorting and recycling household waste, composting organic materials, and avoiding excessive packaging.
4. **Choosing Sustainable Products:** Preferring products with eco-friendly labels, such as organic, Fair Trade, or Forest Stewardship Council (FSC) certified items.
5. **Mindful Shopping:** Considering the environmental impact and durability of products before making purchases and avoiding impulsive buying.
6. **Opting for Local and Seasonal Food:** Choosing locally grown and seasonal produce to reduce carbon emissions from food transportation.
7. **Eating Less Meat:** Reducing meat consumption or opting for plant-based alternatives to lower the environmental impact associated with meat production.
8. **Conserving Water:** Being mindful of water usage at home, fixing leaks promptly, and using water-saving devices.
9. **Using Public Transportation, Cycling, or Walking:** Reducing reliance on personal vehicles and choosing eco-friendly transportation options.
10. **Supporting Sustainable Brands:** Patronising companies that prioritise sustainable and ethical practices in their production and supply chains.

11. Practising Minimalism: Adopting a minimalist lifestyle, focusing on essential and meaningful possessions rather than excessive consumerism.
12. Repairing and Upcycling: Repairing broken items and upcycling old materials into new creations to extend their useful life.
13. Participating in Community Initiatives: Engaging in local sustainability projects, community gardens, or environmental clean-up efforts.
14. Educating Others: Spreading awareness about sustainable consumption habits and encouraging friends and family to adopt eco-friendly practices.

By incorporating these sustainable consumption habits into daily life, individuals can make a significant positive impact on the environment, foster a more sustainable society, and contribute to global efforts to combat climate change and preserve natural resources.

7. SUSTAINABLE PRODUCTION:

Sustainable production refers to the process of manufacturing goods and services in a manner that minimises environmental impact, conserves resources, and promotes social responsibility. The goal of sustainable production is to meet human needs while ensuring the well-being of future generations and preserving natural ecosystems.

7.1 Key principles of Sustainable Production Include:

1. **Resource Efficiency:** Sustainable production aims to optimise resource use, reducing waste and maximising the value extracted from raw materials.
2. **Renewable Energy:** Transitioning to renewable energy sources for production processes to reduce greenhouse gas emissions and dependence on finite fossil fuels.
3. **Circular Economy:** Embracing circular economy practices that promote the reuse, repair, and recycling of products, reducing the need for new raw materials and minimising waste generation.
4. **Eco-friendly Technologies:** Adopting environmentally friendly technologies and production methods that minimise pollution and harmful emissions.
5. **Responsible Supply Chains:** Ensuring that supply chains adhere to ethical and sustainable practices, including fair labour conditions and responsible sourcing of materials.
6. **Product Design for Sustainability:** Designing products with a focus on durability, reparability, and recyclability to extend their life cycle and reduce the need for replacements.
7. **Social Equity:** Considering the social impact of production processes, including fair wages, safe working conditions, and community engagement.
8. **Life Cycle Assessment:** Evaluating the environmental and social impacts of a product throughout its entire life cycle, from raw material extraction to disposal.

7.2 The Three Main Objectives of SCP are.

1. Decoupling environmental degradation from economic growth: Less is More, the concept of sustainable consumption and production involves achieving greater welfare gains from economic activities while minimising resource use, environmental degradation, and pollution across the entire life cycle. It focuses on delivering an increased quantity of goods and services with reduced impact on resources, the environment, and waste generation, ultimately enhancing the overall quality of life.
2. Applying life cycle thinking to improve resource efficiency: This pertains to enhancing the sustainable management of resources and ensuring resource efficiency throughout the entire

life cycle, encompassing raw material extraction, production of intermediate inputs, distribution, marketing, product use, waste disposal, and product/service re-use. The goal is to optimise resource utilisation and minimise environmental impacts during both the production and consumption phases.

3. **Facilitating prospects for developing nations through the adoption of sustainable technologies:** Sustainable consumption and production (SCP) assume a pivotal role in mitigating poverty and accomplishing the objectives outlined in the UN Millennium Development Goals (MDGs). Developing countries are poised to reap advantages from SCP, as it opens avenues for novel market creation, the cultivation of eco-friendly and quality employment opportunities, and the integration of effective, welfare-improving practices for natural resource management. SCP affords an opportunity to readily adopt resource-efficient, ecologically sound, and competitive technologies, thereby bypassing the resource-draining, pollutive, and economically taxing phases that some developed countries have undergone.

Promoting large-scale sustainable consumption and production requires a multi-faceted approach that involves various stakeholders, policies, and practices. **Some key ingredients to achieve this goal include:**

1. **Public Awareness and Education:** Raising awareness among the public about the importance of sustainable consumption and production is crucial. Educating consumers about the environmental and social impacts of their choices can encourage responsible purchasing decisions.
2. **Policy and Regulation:** Governments must implement and enforce policies and regulations that support sustainable practices. This could involve setting standards for eco-friendly production, waste reduction, energy efficiency, and emissions control. Tax incentives and subsidies can also encourage businesses to adopt sustainable practices.
3. **Green Technologies and Innovation:** Encouraging the development and adoption of green technologies can significantly reduce the environmental impact of production processes and products. Investing in research and development of sustainable alternatives can lead to breakthroughs in various industries.
4. **Circular Economy Approaches:** Adopting circular economy models that prioritise recycling, reusing, and reducing waste can minimise the depletion of natural resources and reduce the negative environmental impacts of production and consumption.
5. **Corporate Social Responsibility (CSR):** Encouraging businesses to adopt sustainable and socially responsible practices can drive large-scale change. CSR initiatives can involve sustainable sourcing, energy-efficient operations, and responsible waste management.
6. **Collaboration and Partnerships:** Collaboration among governments, businesses, civil society, and international organisations is essential. Working together can create more comprehensive solutions, share best practices, and mobilise resources for sustainable initiatives.
7. **Consumer Engagement and Incentives:** Engaging consumers through rewards, labels, or certifications for eco-friendly products can incentivize sustainable consumption. Consumers play a crucial role in driving demand for sustainable products and services.
8. **Waste Management and Recycling Infrastructure:** Developing robust waste management and recycling infrastructure is critical to reducing the environmental impact of consumption and production. Proper waste disposal and recycling help prevent pollution and conserve resources.

9. **Life Cycle Assessment (LCA):** Implementing life cycle assessments for products and services can help identify their environmental impacts at different stages, enabling businesses and consumers to make informed choices.
10. **Financial Support and Investments:** Governments and financial institutions can provide support and investment incentives for sustainable businesses and projects. This can accelerate the transition towards more sustainable practices.
11. **Sustainable Supply Chains:** Encouraging businesses to adopt sustainable practices throughout their supply chains can ensure that products are produced responsibly and ethically.
12. **Green Labelling and Certification:** Establishing reliable and widely recognized green labels and certifications can help consumers identify sustainable products and promote sustainable consumption.

By combining these key ingredients, we can make significant progress toward achieving large-scale sustainable consumption and production, contributing to a more sustainable and resilient future.

8. EMBRACING SUSTAINABLE CONSUMPTION AND PRODUCTION OFFERS NUMEROUS ADVANTAGES FOR SOCIETY, THE ENVIRONMENT, AND THE ECONOMY. HERE ARE SOME KEY BENEFITS:

1. **Environmental Preservation:** Sustainable practices help reduce resource depletion, pollution, and waste, leading to the preservation of natural ecosystems and biodiversity.
2. **Climate Change Mitigation:** By decreasing greenhouse gas emissions and promoting renewable energy, sustainable practices contribute to global efforts to combat climate change.
3. **Resource Conservation:** Efficient use of resources ensures their availability for future generations and reduces the strain on finite resources.
4. **Economic Benefits:** Adopting sustainable practices can lead to cost savings for businesses through increased resource efficiency and reduced waste.
5. **Innovation and Job Creation:** The transition to sustainable practices fosters the development of new technologies, industries, and job opportunities in areas like renewable energy and green technologies.
6. **Improved Public Health:** Reducing pollution and hazardous materials in products enhances public health by minimising exposure to harmful substances.
7. **Social Equity:** Sustainable production often involves fair labour practices and ethical sourcing, promoting social equity and workers' rights.
8. **Enhanced Reputation:** Businesses and organisations that demonstrate commitment to sustainability can build a positive reputation and attract environmentally conscious consumers.
9. **Resilience to Risks:** Companies with sustainable supply chains are often better equipped to withstand environmental and social disruptions.
10. **Long-term Viability:** Sustainable consumption and production ensure that resources are used in a way that maintains their availability for future generations, making the current model of development more viable in the long term.

Overall, the shift towards sustainable consumption and production is not only necessary for addressing pressing environmental challenges but also offers a pathway to a more prosperous, equitable, and resilient future.

9. ROLE OF GOVERNMENT IN LINKING SUSTAINABLE CONSUMPTION AND PRODUCTION

The government plays a vital role in linking sustainable consumption and production by creating a supportive policy and regulatory framework, fostering collaboration, and promoting awareness. Here are some key roles of the government in this context:

- 1. Policy Formulation and Implementation:** Governments can develop policies and regulations that encourage sustainable consumption and production. This could include setting standards for eco-friendly products, energy efficiency, waste reduction, and emissions control. Implementing such policies helps steer businesses and consumers toward more sustainable practices.
- 2. Incentives and Subsidies:** The government can provide financial incentives and subsidies to promote sustainable production methods and support businesses that adopt environmentally friendly practices. These incentives can encourage companies to invest in green technologies and sustainable processes.
- 3. Taxation and Pricing Mechanisms:** Governments can use taxation and pricing mechanisms to internalise environmental costs, making unsustainable production and consumption more expensive, while incentivizing sustainable alternatives.
- 4. Research and Development:** Governments can fund research and development initiatives focused on sustainable technologies, materials, and production processes. This helps drive innovation and makes sustainable alternatives more accessible.
- 5. Education and Awareness:** Governments can initiate public awareness initiatives and educational campaigns to enlighten citizens about the merits of sustainable consumption and production. By raising awareness, they can influence individual behaviour and preferences.
- 6. Public Procurement Policies:** Governments, as major consumers, can lead by example by implementing sustainable procurement policies. This creates a demand for sustainable products and services, encouraging the private sector to adapt their practices accordingly.
- 7. Supporting Sustainable Business Practices:** Governments can collaborate with businesses to develop sustainable business strategies and provide resources to help them transition to sustainable practices.
- 8. Collaboration with Stakeholders:** Governments can facilitate multi-stakeholder partnerships involving businesses, civil society, and international organisations to jointly address sustainability challenges and create collective solutions.
- 9. Monitoring and Reporting:** Governments can establish monitoring and reporting systems to track progress on sustainable consumption and production targets. Transparent reporting helps hold both the public and private sectors accountable for their sustainability commitments.
- 10. Supporting Sustainable Supply Chains:** Governments can work with industries to ensure sustainable practices are implemented throughout the supply chain. This includes sourcing sustainably, reducing waste, and promoting fair labor practices.
- 11. International Cooperation:** The government can participate in international agreements and forums to address global sustainability challenges and promote sustainable consumption and production on a global scale.

12.Capacity Building: Governments can invest in capacity-building initiatives to strengthen the knowledge and skills of businesses and individuals to adopt sustainable practices effectively.

By actively engaging in these roles, governments can serve as powerful catalysts for linking sustainable consumption and production, contributing to the overall transition towards a more sustainable and environmentally responsible society.

10.SUMMARY

Sustainable consumption and production (SCP) is an integrated approach that tackles the intertwined issues of environmental decline, unequal social conditions, and economic uncertainty. It seeks to find a harmonious balance between human development and ecological preservation, ensuring that the planet's resources are used responsibly and efficiently.

At the core of sustainable consumption is the notion of conscious consumer behaviour. Individuals are encouraged to make informed and responsible choices when purchasing goods and services, considering their environmental and social impact. Reducing single-use plastics, opting for energy-efficient products, and supporting companies with ethical and sustainable practices are examples of sustainable consumption habits.

On the other hand, sustainable production focuses on transforming industrial processes to minimise negative environmental and social consequences. Resource efficiency is a crucial principle, striving to extract the most value from available resources while minimising waste generation and utilising renewable energy sources like solar and wind power aids in decreasing greenhouse gas emissions and lessening dependence on finite fossil fuels.

The circular economy is another critical concept within sustainable production. It promotes a closed-loop system, where company offerings are designed to be substantial, repairable, and recyclable, thus diminishing the need for continuous production of new goods and eliminating waste.

Responsible supply chains ensure that products are sourced and manufactured in a way that respects human rights, promotes fair labour practices, and minimises negative environmental impacts. Life cycle assessment tools help companies evaluate the environmental and social impacts of their offering throughout the continuous life cycle, i.e. resource extraction to disposal or recycling.

Achieving sustainable consumption and production requires cooperation among different stakeholders. Governments perform an essential role in framing policies and regulations that incentivize and support imperishable practices. Businesses are responsible for integrating sustainable strategies into their operations, promoting eco-friendly products, and investing in sustainable technologies. Civil society, including non-governmental organisations and consumers, advocates for sustainability, raises awareness, and encourages responsible choices.

By embracing sustainable consumption and production, we can create a more resilient and equitable world. It allows us to preserve natural resources, mitigate climate change, promote social justice, and support economic prosperity. This transformative approach is crucial in addressing global challenges and ensuring a sustainable future for all living beings on our planet.

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GREEN INVESTMENT

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ABSTRACT

Green Investment refers to the allocation of financial resources to projects that focus on sustainable practices, environmentally friendly technologies, and the protection of natural assets. The goal of green investments is to support businesses that contribute positively to the environment while generating financial returns for investors. Green investment plays a vital role in the transition to a low-carbon economy, helping combat climate change and promote sustainable development. These investments also have the potential to create new jobs, drive innovation, and foster long-term economic growth. Green investments can be classified into various categories, including renewable energy, energy efficiency and conservation, sustainable agriculture and forestry, sustainable transport, and waste management and recycling. Each thing has its pros as well as cons therefore along with the benefits of going green, green investment carry financial risks, such as market fluctuations and interest rate changes. They also involve environmental and regulatory risks. However, green investments can generate competitive returns and offer long-term growth potential as the world transitions to a more sustainable economy. Investors can assess green investment opportunities by considering factors such as environmental, social, and governance (ESG) criteria, financial performance, and company management and track record. Additionally, diversifying portfolios across different sectors, regions, and asset classes can help to spread risks and enhance potential returns. Regularly monitoring and evaluating portfolio performance is also essential to cooperate with investor goals and market developments.

Keywords: Sustainability, Risk-Reward Balance, Energy Efficient, Standardization.

1. INTRODUCTION

Investor interest in resource efficiency and environmental issues has increased in recent years as a result of the perceptible environmental and climatic changes. Corporate social responsibility has been viewed as a phenomenon that distinguishes an organization's operations from the environmental, social, and economic aspects since 1924. As a result, it is made clear that businesses are accountable for both growing their bottom line and fostering social and economic development that is compatible with the environment. Green investments started to appear as a result of social investments that were efficient and responsible. The term "green investments" refers to investment activity that focuses on projects or areas that are committed to preserving the environment, such as pollution reduction, fossil fuel reduction, conservation of natural resources, production of alternative energy sources, project related to cleaning and maintaining of air and water, waste management, or any other type of environmentally conscious practices. Stocks, ETFs, mutual funds, and bonds issued by organisations with a primary goal of enhancing the environment are examples of investments that fall under the "green" category.

The term "green investment" is quite wide. It might be viewed as a stand-alone idea, a part of a larger investing theme, or strongly associated with other investment strategies. With the rise in worries regarding the green economy and green growth, which were heavily covered by the media globally in order to address the 2008 financial crisis, 2010–2011 will be used as instruments.

Green investments have four unique qualities that set them apart from typical "non-green" investments: they have externalities, their profitability depends on assistance from the

government, they take place in a world of rapid technological advancement, and they are highly unpredictable. Of course, not each green investment initiative must deal with each of these four requirements. Similarly, non-green projects may also have negative externalities, depend on governmental backing, take place in a time of fast technological advancement, or have questionable profitability.

The following are the features of green investment:

- 1. Externalities of Green Investment:** There are several externalities produced by green investments. They contribute to prevent climate change and its effects first and foremost. However, making green investments can also have tactical advantages. Increasing energy conservation and generating more renewable power both help a nation become less reliant on nations that export oil or gas. If a sizable portion of the value added is generated domestically, the trade balance of the individual nations improves concurrently. Economically speaking, all types of green investments provide employment, increasing GDP as well as taxes and contributions to social security. Green investments, nevertheless, also have unfavorable externalities. The danger of fire and the release of poisonous vapors in the event of a fire can both be increased by increasing energy efficiency through thermal insulation. On the one hand, collecting and storing carbon requires a significant amount of energy and results in the production of more carbon. On the other hand, there is a significant chance that a carbon leak might endanger the environment or the health of local residents.
- 2. Support for Green Investments from the Government:** Generally speaking, the benefits of making green investments are judged to exceed the drawbacks. Government support is thus required to encourage green investments in circumstances when they are not lucrative on their own. Subsidies, rules and regulations, prices, and quotas and restrictions are some of the numerous ways that green investments may be encouraged. Government funds are used to boost the profitability of green initiatives by lowering investment costs and/or raising profits through fiscal tools like subsidies and tax incentives. They are simple to comprehend and put into practice, but they are not always economical, and there is no assurance that a certain goal will be achieved.
- 3. Technological Advancement:** Government support of renewable energy sources is intended to start a process that lowers the associated costs to a point where such technologies can truly compete with conventional ones. In fact, with extensive government assistance, some green ventures have been able to significantly boost their profitability during the past few decades. A further rise in profitability is anticipated going forward. Governments may have to modify the support structure for certain green initiatives due to advancements in technology, economic development, or changes in societal green consciousness. However, changes in governmental assistance may have a significant impact on the investment activity. Particularly, a fundamental fall in the level of official backing or an abrupt shift in the support structure may cause the investment activity surrounding a specific green venture to completely cease.
- 4. Uncertainties:** The same risks that apply to traditional investments also apply to green ventures. These in particular include the uncertainty of the economy, politics, and technology. However, in the case of green investments, both the scope and the impact of these uncertainties are typically substantially bigger. Almost all investment projects are subject to economic uncertainty, which includes uncertainty regarding salaries as well as other factor costs, uncertainty regarding the (riskless) interest rate, and uncertainty surrounding the demand and market price of the produced commodities. When we examine the "goods" generated by green investments, we find that many of them cannot be stored.

The goals of green investing are to help firms, investors, and politicians make decisions that are ecologically friendly and long-lasting but green finance should be done by considering its principles. Following are some important green investment tenets:

1. **Environmental Sustainability:** Green investments provide top priority to initiatives that advance environmental sustainability and aid in resolving urgent environmental issues including pollution, climate change, and resource depletion.
2. **Positive Impact:** Green investments should benefit the environment in a quantifiable way. This effect may improve environmental quality, lower carbon emissions, conserve natural resources, or support renewable energy.
3. **Long-Term Perspective:** Because of the nature of environmental concerns and the length of time needed for some initiatives to produce meaningful effects, green investments frequently have longer time horizons. Investors need to be patient and think about the long term.
4. **Transparency and Accountability:** For green investments, accountability and transparent reporting are essential. Access to accurate and trustworthy information regarding the environmental performance and effect of investments should be available to investors.
5. **Risk Management:** Although green investments might present excellent potential, they are also subject to risks such market volatility, technology uncertainty, and regulatory changes. Effective risk management and assessment techniques are crucial.
6. **Innovation and technology:** Supporting cutting-edge technologies and solutions that can lead to positive environmental change is a common component of green investments. Adopting innovative technology may have positive effects on the environment as well as the bottom line.
7. **Alignment with Sustainability Goals:** Green investments should be in line with more general sustainability goals at the local, national, and international levels. Supporting initiatives that adhere to international agreements like the Paris Agreement on climate change may be part of this.
8. **Stakeholder Engagement:** To make sure that green investments have beneficial social and environmental results, it's crucial to engage with a variety of stakeholders, including local communities, administrative entities, and environmental organizations.
9. **Diversification:** Diversifying green investment portfolios may help manage risks and take advantage of opportunities in a variety of sustainability-related industries, including sustainable agriculture, clean technology, renewable energy, and more.
10. **Measurable measures:** It's critical to define and employ precise measures in order to assess the environmental impact of investments. Investors may use these measures to monitor development and evaluate the success of their green investments.
11. **Avoiding "green washing":** Green washing is the practise of misrepresenting a financial product as environmentally friendly when in fact it does not support sustainability. Investors that support the environment should carefully assess the veracity of statements and make sure their investments are actually in line with green values.
12. **Partnerships and Collaboration:** By working together, investors, companies, governments, and civil society can increase the effect of green investments. Partnerships can aid in the expansion of sustainable projects and programmes.

Green investing principles seek to balance financial objectives with environmental responsibility, ensuring that investments not only provide profits but also help to create a more sustainable and resilient world.

2. REVIEW OF LITERATURE

Zhang & Kong, (2022) looked at how sustainable business practices and renewable energy legislation relate in China. Findings indicated that renewable energy rules were not favorable to improving company sustainability and sustainability rate; this result was contradictory theoretical predictions. 32,267 data points were used from 2007 to 2019 for A-share listed businesses in Shanghai and Shenzhen, China. In addition, it was discovered that green investments made by businesses encouraged business sustainability and had a limited mediating role in the effects of renewable energy legislation on business sustainability. Additionally, the influence of renewable energy legislation on corporate sustainability was varied due to the variations in firm characteristics and the market environment. The sustainable development of state-owned businesses, labor-intensive businesses, and businesses with minimal equity concentration were most hampered by renewable energy legislation.

Chițimiea et al., (2021) conducted a study for the years from 1990 to 2020, and the sample that was analyzed included 444 publications. Examining the value of adopting green investments inside organizations and identifying the factors that affected decisions to make green investments were the goals of this study. Following the application of the two techniques of analysis, the findings demonstrated that in the previous six years, firms' interest in green investments has expanded dramatically as a consequence of organization's concern for resource efficiency and environmental challenges. This study identified the internal and external factors that may influence businesses more or less, depending on the situation, in order to participate in green investments. The article offered new pathways for future research on this matter.

Almansoori, H. and Nobanee, H. (2021) determined the impact of green investments and how they could affect long-term financial viability. They emphasized the importance of a safer environment for the wellbeing of people and other living things. They came to the conclusion that improved financial results that resulted in better corporate governance were supported by improved financial performance, respect for work and compliance, and honesty. Additionally, the type of business is a factor for instance, a trust has a primary return/risk policy. With green investments, the emphasis is on the environmental risks, and the practicality of lowering risks is controlled by allocating cash (via finance) to the specific project that is leading the sustainability movement.

Tran et al., (2020) analysed data from 208 companies across a variety of industries to look into the variables affecting green investment in Vietnam. The findings show that a number of factors, including the availability of capital, incentives for capital access, understanding of green investment, government support, infrastructure for green investments, and the active implementation of green projects, have a big impact on green investment. The report recommends that although enterprises could increase awareness and use capital raising mechanisms to encourage green investment, the government should take the lead in promoting green finance and capital mobilization.

Padmavathi, U. (2017) the study focused on the key contributions that corporate green investment initiatives provided to sustainable development. In an effort to create a green economy, this study did a conceptual analysis and identified how company green investing practices contribute to economic sustainability, social sustainability, and environmental sustainability. It examined the trajectories of both domestic and foreign green investment. This concentrates on the national and international markets for green bonds. The article offered a strategy for adopting green investing practices by corporations, which is crucial for advancing sustainability goals that are crucial for creating a low-carbon or green economy.

3. OBJECTIVES

1. To study the factors affecting green investment.

2. To identify the challenges of green investment.

4. RESEARCH METHODOLOGY

The study is descriptive in nature as it describes the concept of the green investment, factors affecting green investment and challenges of green investment. The researcher has analyzed the previous studies and collected secondary data from their studies to make the study more relevant.

5. FACTORS AFFECTING GREEN INVESTMENTS

As the world grapples with climate change and increasing environmental challenges, green investments have gained significant attention. However, several factors influence green investments. Here are some key factors:

1. **Government Policies and Regulations:** Government policies and regulations significantly impact green investments. Supportive policies such as renewable energy targets, carbon pricing mechanisms, tax incentives, grants, and feed-in tariffs can stimulate investment in the green sector. Clear and stable policies provide investors with a predictable environment, reducing risks and encouraging long-term commitments.
2. **Market Demand and Consumer Preferences:** Increasing public awareness and demand for sustainable products and services can drive green investments. Consumer preferences for environmentally friendly options push businesses to adopt sustainable practices, creating opportunities for investors. Companies that align with changing consumer expectations are more likely to attract investment.
3. **Technological Advancements and Innovation:** Technological advancements play a vital role in driving green investments. Innovations in renewable energy, energy storage, energy efficiency, and other clean technologies drive down costs, improve efficiency, and enhance the viability of green projects. Investors are attracted to technologies with strong growth potential and the ability to disrupt traditional industries.
4. **Financial Performance and Returns:** The financial viability of green investments is crucial to attract investors. Projects and companies with strong financial performance, competitive returns, and sustainable business models are more likely to receive investment. Demonstrating profitability and a clear path to financial success is essential for attracting capital.
5. **Environmental, Social, and Governance (ESG) Considerations:** ESG factors have gained prominence in investment decision-making. Investors evaluate a company's environmental practices, social impact, and governance structure to assess its sustainability and ethical standing. Companies with strong ESG performance are more likely to attract investors who prioritize responsible and sustainable investments.
6. **Risk and Return Profile:** Green investments may have unique risk profiles. Investors analyze the risks associated with factors such as policy changes, regulatory compliance, market volatility, technological uncertainties, and project-specific risks. Understanding the risk-reward balance is crucial for investors considering green investments.
7. **Access to Financing and Capital:** Availability and accessibility of financing play a crucial role in green investments. Investors seek opportunities where financing options such as green bonds, venture capital, private equity, and project finance are readily available. Improving access to capital for green projects can accelerate their growth.
8. **Collaboration and Partnerships:** Collaboration between governments, businesses, and investors is vital for the success of green investments. Partnerships can facilitate knowledge

sharing, technology transfer, and risk sharing, fostering a supportive ecosystem that attracts investment.

9. **Reporting and Transparency:** Transparent reporting on environmental impact, sustainability metrics, and financial performance is essential for attracting green investments. Standardized reporting frameworks and disclosure practices enhance transparency, enable better evaluation of investment opportunities, and build investor confidence.
10. **Corporate Sustainability Initiatives:** The sustainability initiatives and commitments of corporations have a significant impact on green investments. Companies that prioritize sustainability and incorporate environmental goals into their business strategies create a favorable environment for green investments. This includes integrating renewable energy sources, adopting energy-efficient technologies, and implementing sustainable supply chain practices. Corporate sustainability leadership can influence investor sentiment and encourage more green investments.

Green investment is influenced by a combination of factors spanning government policies, market demand, technology, finance, corporate sustainability initiatives, environmental risks, and social and governance considerations. As the world recognizes the need for sustainable development and addresses pressing environmental challenges, these factors will continue to shape the growth and success of green investments. By understanding and addressing these factors, stakeholders can foster an environment conducive to sustainable and profitable green investments.

6. CHALLENGES OF GREEN INVESTMENT

1. **Uncertainty in Policy and Regulations:** Frequent changes in government policies and regulations related to green investments can create uncertainty for investors. Inconsistent or unclear policies may affect the profitability and feasibility of green projects, making it difficult for investors to assess risks and make informed decisions.
2. **Financing and Capital Constraints:** One of the primary challenges of green investment is the financial aspect. While there is a growing demand for sustainable projects, they often require significant upfront investments and have longer payback periods compared to traditional investments. The high capital costs associated with renewable energy infrastructure, energy-efficient technologies, and sustainable agriculture can deter some investors. Additionally, the lack of access to affordable financing options and the limited availability of green investment funds can pose challenges for projects seeking financial support.
3. **Technology and Innovation Risks:** Green investments often rely on innovative technologies and solutions. However, technological risks and uncertainties can pose challenges. The development and deployment of new technologies, such as advanced energy storage systems or carbon capture and storage, may face technical challenges, scalability issues, and high research and development costs. Investors may be hesitant to invest in unproven technologies due to the potential for failure or slow market adoption.
4. **Market Volatility and Lack of Liquidity:** Green investments can face market volatility and a lack of liquidity, particularly in emerging sectors. Market fluctuations in commodity prices, such as fluctuations in the price of renewable energy or carbon credits, can impact the financial viability of green projects. Additionally, the lack of standardized frameworks and market mechanisms for trading green assets can limit liquidity and hinder the ease of buying and selling green investments.

- 5. Lack of Track Record and Data:** Some green investment sectors, such as emerging renewable energy technologies, may have limited historical data and track records. This lack of data can make it difficult for investors to assess the performance and risk profile of such investments accurately.
- 6. Market Perception and Awareness:** Despite increasing awareness, green investments may still face skepticism or lack of understanding from some investors. Overcoming biases and misconceptions about the financial returns and risks associated with sustainability-focused investments remains a challenge.
- 7. Project Complexity and Execution:** Green projects often involve complex technologies, integration challenges, and long project timelines. Successfully executing and managing these projects require specialized expertise, coordination among multiple stakeholders, and effective risk management, which can pose challenges for investors.
- 8. Access to Qualified Professionals and Expertise:** Green investments require professionals with specialized knowledge in areas such as renewable energy, sustainable finance, and environmental regulations. The availability of skilled professionals and experts in these fields can be limited, posing challenges for investors in finding the right expertise.
- 9. Scalability and Infrastructure Challenges:**
Scaling up green investments to achieve significant environmental impact can be challenging. Developing a robust and supportive infrastructure, such as renewable energy grids or sustainable transportation networks, requires significant investment and coordination among various stakeholders. Limited infrastructure and transmission capacity can impede the growth and integration of green projects, particularly in remote or underdeveloped areas.
- 10. Lack of Standardization and Transparency:** The absence of standardized metrics and reporting frameworks for assessing environmental performance and impact can make it challenging to compare and evaluate different green investment opportunities. Inadequate transparency in project information and reporting practices can hinder investor confidence and due diligence.
- 11. Measurement and Reporting of Impact:** Another challenge lies in measuring and reporting the impact of green investments accurately. Investors and stakeholders increasingly demand transparency and accountability in terms of the environmental and social impacts of their investments. However, establishing standardized metrics and frameworks for assessing and reporting the environmental and social performance of green projects can be complex. The lack of consistent and comparable impact measurement practices makes it difficult for investors to evaluate and compare different green investment opportunities.

Green investment faces several challenges, including financial barriers, policy and regulatory uncertainties, technological risks, market volatility, perception of risk and return, lack of awareness and education, measurement and reporting complexities, and scalability and infrastructure challenges. Addressing these challenges requires collaborative efforts from governments, financial institutions, businesses, and civil society. By addressing these challenges, stakeholders can create an enabling environment for green investment and accelerate the transition to a sustainable and low-carbon economy.

7. CONCLUSION

Green investment is an investment activity which concentrates on areas that are dedicated to preserve the environment, such as pollution control, fuel reduction, protection of natural assets, production of various energy sources, projects related to cleanliness of air and water, waste management, or any other type of sustainable practices. Stocks, ETFs, mutual funds, and bonds issued by organizations with a primary goal of enhancing the environment are examples of

green investments. In an effort to create a green economy, this study did a conceptual analysis as there is a need for sustainable development through investment. To fulfill this, a clear understanding of factors affecting green investment should be done. Green investment is influenced by a combination of factors spanning government policies, market demand, technology, finance, environmental risks, and social and governance considerations. These factors will continue to shape the growth and success of green investments. By understanding and addressing these factors, stakeholders can foster an environment conducive to sustainable and profitable green investments. Various reports recommend that although enterprises could increase awareness and use capital raising mechanisms to encourage green investment, the government should take the lead in promoting green finance and capital mobilization. Green investment, which focuses on environmentally sustainable projects and businesses, faces several challenges despite its growing importance in addressing climate change and environmental degradation. These challenges can hinder the growth and success of green investment initiatives. Efforts should be made to convert these challenges into opportunities to achieve the goal of sustainable growth.

8. LIMITATIONS OF THE STUDY

- Study was done on the basis of previous studies only.
- Study lacks first hand data.
- Study lacks validity because of practical less work done.

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A STUDY ON EMPLOYEE RETENTION AND SUSTAINABLE PRACTICES

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ABSTRACT

Businesses all around the world are starting to examine more environmentally friendly business practices due to the significant climate situation. Businesses that practice sustainability will be stronger and have a longer-lasting influence. The research article emphasizes the connection between staff retention and sustainable business practices. It suggests that as people become more aware of global business activities, they reward companies with strong sustainable policies, which can lead to long-term financial health. The literature review conducted for the study reveals a link between sustainable practices and employee retention, indicating that promoting sustainable practices can also foster worker involvement and empowerment. When organizations adopt and prioritize sustainability, they are not only rewarded by environmentally conscious customers but also benefit from a more engaged and committed workforce. This alignment between sustainability efforts and employee retention can contribute to the greater success and positive impact of businesses. The main objective of the study was to examine employee retention and sustainable practices followed by the organizations. To achieve this objective, data for the study was gathered from secondary sources. Based on the data and available literature, the study finds a positive correlation between employee retention and the sustainable practices followed by the various organizations.

Keywords: Employee Retention, Sustainability, Practices, Ecology, Turnover.

1. INTRODUCTION

In today's highly competitive business environment, finding qualified personnel is one of the companies' top priorities especially in the current scenario where the demand for the employees is equally high in similar organizations offering attractive packages and incentives. Retention of employee talent is one of the serious issues that concerns managers worldwide. **(Bhattacharya et al, 2011)** Employees play a key role in organizations overall growth and prosperity. Organizations functioning in the public sector or private sector are aware how difficult it is to employee's expertise that helps them in acquiring competitive advantage and profitability. **(Guchait, 2010)**

Organizations success not only depends upon qualified, skilled workforce but also on retaining them for a long-term period. **(Aman-Ullah et al, 2020)**. Frequent turnovers will affect productivity, increase expenses to the organizations in hiring and replacements, training programs etc thus resulting in losses to the organization. **(Paul, 1996)**.

In today's fiercely competitive business market, qualified personnel are the main point of differentiation for the majority of firms. **(Burack, 1991)**. Given the high turnover rate, qualified staff retention is a critical problem for managers everywhere. Recent research has revealed that managers are finding it challenging to keep highly talented workers on board since they are in great demand from other firms that offer competitive benefits and incentives. **(Dockel et al, 2006)**.

Successful companies are aware of how critical it is to retain their workforce over an extended period of time while attracting highly skilled individuals. A company's bottom line is constantly harmed by staff turnover since it requires money to hire a replacement and does so temporarily

at the expense of productivity. If people are frequently quitting a company, it is almost impossible for it to succeed. (Mutembei et al, 2018). Talent retention and acquisition are given top priority because they are crucial for an organization's performance. Talent retention ensures productivity and business success whereas talent attraction makes sure that the top candidates are hired for a position. (Burack, 1991). By enrolling in a sustainability certification program, companies might benefit from the present hiring trend and establish a reputation as a long-lasting firm that can enhance both the social and economic climate. (Armstrong et al, 2009).

The field of sustainability is poised for a major advancement. Companies all across the world are starting to look at more environmentally friendly business practices, largely because of the urgent climate situation. (Burke et al, 2006). Businesses that are sustainable will be tougher and have a longer lasting effect. There are numerous ways for businesses to be sustainable. One of the main steps that should be taken to become sustainable is to reduce waste, prevent pollution, adopt clean energy, conserve water, use energy-efficient materials, and adopt sustainable business travel policies. (Coff, 1997).

The retention and recruitment of employees now heavily depend on sustainability. Many job seekers assess potential recruits according to their "greenness," taking into account factors related to sustainability as well as the benefits the company offers. (Perreira, 2018). Top talent is easily attracted to and retained by businesses that can quickly adapt to this new trend. Typically, when job applicants ask about a company's environmental sustainability history, and company's environmentally conscious business practices, like carbon footprint and energy usage. ESG also includes social problems like diversity, equity, and inclusion initiatives as well as labour standards. (Raziq, et al, 2015)

Government and consumer pressure on businesses to adopt more sustainable business practices is increasing. According to an IBM study, customers are showing a rising interest in supporting businesses that they perceive to be engaging in positive ESG practices, with 55% of respondents saying that company sustainability is "very or extremely important" when they are choosing products. (Friede et al, 2015)

People, planet, and profit are the "triple bottom line" or "the 3 P's" that all firms should prioritize, according to sustainability experts. Businesses can increase profits by caring for their communities and the environment, according to the theory. Organizations that put a strong emphasis on sustainability are better positioned to draw in and keep millennial employees with regard to the crucial issue of inspiring millennials. (Sachin et al, 2014).

Successful companies are aware of how critical it is to retain their workforce over an extended period of time while attracting highly skilled individuals. A company's bottom line is constantly harmed by staff turnover since it requires money to hire a replacement and does so temporarily at the expense of productivity. (Ombanda, 2015). If people are frequently quitting a company, it is almost impossible for it to succeed.

Additionally, businesses that are able to recruit and keep quality employees see significant increases in production. (William et al, 2023). Compared to average employees, quality employees are 400% more productive, according to research by McKinsey & Company. Additionally, keeping an employee reduces the need for a business to expend time on ineffective tasks like hiring, training, and conducting background checks on new hires.

2. OBJECTIVE AND METHODOLOGY

The major objective of the study was to examine how sustainable organizational practices affect employee retention. The data for the study was collected from the secondary sources and based on the available literature significant conclusions were made.

3. SUSTAINABLE BUSINESS PRACTICES AND EMPLOYEE RETENTION – REVIEW OF LITERATURE

The need for sustainability in business is currently greater than ever. It has proven to be a crucial tool for any company looking to stay on top in a cutthroat business environment. Sustainability is gradually taking the top spot on the list of expectations that employees and customers have of businesses today. The study of sustainability is about to make a significant advancement. Because of the serious environmental problems, businesses everywhere are beginning to consider more ecologically responsible business methods. Businesses that are sustainable will be more resilient and have an impact that lasts longer.

Employee Retention: According to the Oxford English Dictionary, the word "retain" has the following meanings: "keep in one's service," "secure the services of a person," and "absorb and hold" (Abate, 1998). Retention is regarded as " a responsibility to engage in continuing business interactions or exchanges with a specific entity" (Zineldin, M., 2000). According to (Lockwood, N.R., 2006)," the use of coordinated tactics or programs to boost workplace performance through the creation of more efficient methods for attracting, training, and retaining employees. and utilizing people with the required skills and aptitude to meet current and future business needs" is how retention is defined. The term "employee retention" is defined as " an organized effort to develop and support an atmosphere that motivates people to stay at their current jobs by putting policies and practices in place," according (Workforce Planning for Wisconsin State Government, 2015).

Retention is seen as both a comprehensive module of an organization's human resource strategies and a multifaceted component of its human resource policies (Freyermuth, 2007). If retention strategies are not sufficiently incorporated into business operations, all of the recruitment efforts will ultimately be for naught (Earle, H. A., 2003). It begins with selecting the most qualified candidates and continues with implementing initiatives to maintain their commitment to the company (Freyermuth, 2007). According to (Logan, J. K, 2000), firms that offer staff development opportunities report success in terms of employee retention. (Baker., 2006) asserts that keeping the organization's current staff is far cheaper and easier than recruiting new employees.

Various methods and approaches are constantly being discussed by organizations to keep their personnel (Tanwar and Prasad, 2016; Bibi et al., 2018). According to (Hom and Griffeth, 1995), employee retention is the process through which employees are persuaded to remain with their organizations for a longer period of time. Employee retention is typically simple as long as there is a strong fit between the employee and the employer (Umamaheswari and Krishnan, 2016). The extensive literature indicated that a number of factors, including job advancement, bonus, and extrinsic and intrinsic motivation factors (De Sousa Sabbagha et al., 2018, Woodall et al., 2017), have a substantial impact in employee retention. Others include compensation (Colson and Satterfield, 2018), knowledge exchange (Agarwal and Islam, 2015) and organizational commitment (Perreira et al., 2018).

Peer support, organizational culture, and work-life balance might be added to this list (Deshwal, 2015; Ombanda, 2015).

According to studies (Bibi et al., 2018; Lyman et al., 2020), psychological elements, benefits and rewards, and possibilities for professional advancement are all important for retaining employees. The importance of human resource management in the development of this concept has come to the consensus of academics and practitioners (Deshwal, 2015; Tian et al., 2020). To encourage organization-related outcomes, such as decreased withdrawal behaviours and commitment, it's crucial to have guidance from a supervisor, as well as favourable working circumstances and incentives. (Rhoades and Eisenberger, 2002; Gillet et al., 2022). In order

to enhance the likelihood that an employee will stay on the job, supervisor support is essential **(Kalliath and Kalliath, 2014)**.

Due to the shortage of trained workers caused by ongoing globalization, technological innovation, economic development, and employee turnover, corporate leaders face employee retention concerns as the most important workforce management challenge. **(Ombanda, 2015)**. For the success, competitiveness, and most importantly survival of the business, every organization strives to keep a key, positive, talented, competent, skilled, trained, experienced, and high potential staff.

In a survey conducted by Glassdoor, nearly 3 in 5 respondents revealed that before accepting a job offer, respondents strongly examine the benefits and bonuses. According to a Harvard Business Review survey, social perks including more flexible schedules, increased vacation time, and work-from-home possibilities were valued most highly by job searchers compared to health insurance. A job that allows for remote work is something that about 80% of job seekers would think about accepting. These advantages, which are also well-liked by parents and millennials, are affordable and long-lasting for small businesses that want to provide alluring benefits but lack the funds for a pricey benefits package. Additionally, considering that 71% of workers are eager to leave their existing jobs, current employees also value these social benefits. **(Burke et al, 2006)**.

Apart from the above by offering a number of activities that may be leveraged to minimize environmental footprint, enhance job satisfaction, boost employee loyalty. It is possible for enterprises to be sustainable in many different ways. Some of the important steps include reducing waste, eliminating pollution, using clean energy, saving water, employing energy-efficient products, and implementing sustainable business travel policies to become sustainable. **(Keil, 2017)** Additionally, initiatives for sustainable certification make it simpler for businesses to offer social incentives that can draw in and keep employees for a longer term. For instance, a business that adopts sustainability efforts, such as giving a percentage of its profits pertaining to the environment and allowing workers to work from home, is more likely to draw in and keep employees than one that does not make a commitment to social or environmental sustainability. **(Dongyong, 2017)**

The need for sustainability in business is currently greater than ever. It has proven to be a crucial tool for any company looking to stay on top in a cutthroat business environment. Sustainability is gradually taking the top spot on the list of expectations that employees and customers have of businesses today.

Failure to adapt and improve can indeed put businesses at risk of losing clients and public confidence. Embracing change and implementing improved procedures can be vital for the growth and success of any company. Organizations can gain through transition and enhance their operations by identifying and eliminating inefficiencies and redirecting their resources towards growth and expansion. **(Truant, 2017)**.

Hiring and retaining employees is one of the significant advantages that sustainable businesses can gain. Implementing sustainable methods, and demonstrating a commitment to environment and society can have a positive impact on employee recruitment, retention and overall satisfaction. **(Guchait, 2010)**. The demand for sustainability experts has increased due to the growth of sustainable business practices, and bridging the gap can be achieved by providing current workers with the necessary training. In addition to providing your business with the necessary skills to drive sustainable transformation, doing this will provide your staff the knowledge and abilities they need to feel successful.

There is enormous demand on businesses to adopt sustainable practices., and it's not only from the workforce. Professionals and experts who work for companies that lead the way in sustainable initiatives frequently claim to be happier and more effective. **(Khan, 2018)**. A recent survey by Get Smarter discovered that 56% of employees want to work for organizations committed to environmental protection and 73 percent of consumers are willing to alter their purchasing patterns in order to lessen their negative environmental effects. Sales have increased for companies that have made real attempts to be sustainable, and successful companies typically have lower employee turnover. Companies that put more emphasis on upskilling existing staff will experience increased employee satisfaction as well as talent empowerment to contribute to sustainable practices across all departments. **(Muduli et al, 2020: Olah et al, 2020)**

Social inequality, Government policies and climatic changes are interconnected issues that shape the world's direction and pace of change. **(William, 2023)** Sustainability is a powerful concept that can play a crucial role in addressing these challenges and creating a more resilient world. Organizations by prioritizing business strategies that are sustainable can positively impact their branding, customer loyalty, staff recruitment and employee retention which contribute to an equitable future for all.

Businesses have started changing their approach as the future of work continues to emphasize sustainability through employee involvement and hybrid workplaces, to alter globally in the wake of the epidemic. **(Sharma et al, 2020)**. Over 1,000 Indian employees and business managers participated in Adobe's Sustainability at Work survey to learn more about Indian workers' opinions on their companies' sustainability policies.

The survey participants were questioned regarding the sustainability initiatives taken by their business as well as their expectations for the next ten years. According to respondents, using sustainable business practices improves workplace culture, lessens adverse environmental effects, and boosts overall productivity. **(Kelley et al, 2021)**

According to the poll, 82% of respondents would like to be more actively involved in advancing sustainability practices at work, and 83% of respondents feel empowered to contribute to improving their company's sustainability standards. When it comes to implementing sustainable measures, almost 70% of Indian employees believe their firm is on par with or ahead of other businesses in its industry. **(Kelley et al, 2021: Hunter et al, 2020)**

Esker's survey which was conducted by taking 600 U.S salaried workers showed the following results. According to employees, businesses should give the following sustainability initiatives top priority in 2023: Use energy-saving techniques (68%), Material reuse and recycling (65%), Calculate your carbon footprint and try to reduce it (57%), Inform and prepare staff members about sustainable practices (55%), Deal only with vendors, partners, and suppliers who uphold sustainability (48%), Use less paper (43% less).

4. SUSTAINABLE PRACTICES BY INDIAN COMPANIES

Promoting sustainable practices and employee retention are essential aspects of responsible and successful businesses in India. Many companies operating in India have recognized the importance of sustainability and its impact on attracting and retaining talent. Here are some examples of companies in India that are known for promoting sustainable practices and prioritizing employee retention.

Infosys: Infosys, one of India's leading IT services and consulting companies, has a strong focus on sustainability and social responsibility. The company has made significant strides in reducing its carbon footprint through energy efficiency initiatives and renewable energy adoption. Infosys also actively engages its employees in sustainability programs and community development projects, creating a positive work environment and fostering employee loyalty.

Wipro: Another major IT services company, Wipro, has a well-established sustainability strategy, which includes energy-efficient practices, waste reduction, and green product design. The company places importance on employee development and work-life balance, contributing to high employee satisfaction and retention rates.

Tata Group: The Tata Group is a diversified conglomerate with a long history of promoting sustainable practices. Tata companies, such as Tata Consultancy Services (TCS), Tata Motors, and Tata Steel, have implemented various sustainability initiatives, including renewable energy adoption and community development projects. The Tata Group's focus on corporate social responsibility and employee welfare has contributed to its reputation as an employer of choice.

Hindustan Unilever Limited (HUL): HUL, a subsidiary of Unilever, is a leading fast-moving consumer goods company in India. HUL has integrated sustainability into its business practices, with initiatives focused on reducing environmental impact, promoting water conservation, and enhancing livelihoods in rural communities. The company's commitment to sustainable practices contributes to employee engagement and retention.

Mahindra & Mahindra: Mahindra & Mahindra, a prominent automobile manufacturer in India, is known for its sustainability efforts. The company has focused on electric mobility, renewable energy, and green manufacturing processes. Mahindra's emphasis on employee development and well-being has contributed to its positive employer brand and employee retention.

Godrej Group: The Godrej Group, a diversified conglomerate, has been actively involved in sustainability and environmental stewardship. The group has implemented green initiatives, including waste reduction and energy efficiency, across its businesses. Godrej's commitment to employee growth and work-life balance has been instrumental in retaining talent.

ITC Limited: ITC, a leading conglomerate in India with businesses in sectors like FMCG, hospitality, and paperboards, has made sustainability a core part of its business strategy. The company has focused on sustainable agriculture, renewable energy, and environmental conservation. ITC's employee-centric policies and emphasis on employee development contribute to strong employee retention.

The above practices demonstrate that promoting sustainability and prioritizing employee retention are not mutually exclusive goals. In fact, they can complement each other and contribute to the long-term success and positive impact of businesses. Organization approaches that take sustainability into consideration gain a competitive advantage. They attract environmentally conscious customers, investors, and partners, leading to enhanced brand reputation and market positioning. Also, sustainable practices and a focus on social responsibility creates a sense of purpose and engagement amongst employees. Companies that prioritize employee well-being, development, and work-life balance tend to experience higher employee retention rates. Sustainable and socially responsible initiatives promote a positive work culture that motivates employees to stay with the organization.

5. CONCLUSIONS

Companies that prioritize employee well-being, development, and work-life balance tend to experience higher employee retention rates. Sustainable and socially responsible initiatives promote a positive work culture that motivates employees to stay with the organization. In Conclusion by incorporating sustainability into business practices not only contributes to a healthier planet and society but also enhances a company's ability to attract and retain talent, remain competitive, and build a positive brand reputation. By prioritizing employee well-being, development, and engagement, companies can create a workforce that is dedicated to achieving sustainable goals and driving long-lasting positive change.

6. LIMITATIONS OF THE STUDY

The major limitations of the study are: it was based on secondary sources of the data and necessary inferences were drawn from the published sources. Secondary data might not provide the detailed insights into the specific sustainable practices implemented by the organizations and might not provide enough context about the industry, organization practices, culture and specific circumstances that would influence the relationship between sustainable practices and employee retention.

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GREEN HRM PRACTICES – OPTIONS, STRATEGIES & POSSIBLE OUTCOMES**Mr. Ashok Jambur¹ and Charu Goyal²**¹Member, Advisory Board, Human Development Society (hds.org) & Advisor, Sarvatra Integrated Management Services Pvt Ltd. Gurgaon²Assistant Professor, Parul University, Vadodara, Gujarat**ABSTRACT**

Sustainable development is increasingly becoming much more than a topic to speak at seminars and conferences and a matter of urgent concern for the global community as all stakeholders try to find ways and means to literally and figuratively “meet the needs of the present without compromising the ability of future generations to meet their own needs”.

It is not surprising that individuals, institutions, and countries are attempting to do things that are less energy-intensive and reduce carbon footprint. As organizations draw up their own enterprise level plans to meet net zero targets, ‘Green HRM’ is one more structural opportunity to explore actions that can be taken to reduce carbon footprint and do what we have to do with the least harmful impact on the already threatened & fragile environment.

Human Resource feature has a crucial role in building organizational culture which can go a long way in sensitising the workforce about individual and enterprise carbon footprint and its harmful impact. It also has the responsibility to plan, prioritise and strategize organizational capability towards achieving sustainability and ensuring environment protection.

Most importantly, in terms of role & identity, the HR function in an organization is the ‘behavioural role model’ and hence it can provide management with much needed moral authority to do and act in a manner that spreads the message that in this organization, leaders, ‘walk the talk’. This chapter explores the options, strategies, and possible outcomes of Green HRM.

Keywords: sustainable development, carbon footprint, net zero targets, Green HRM, organizational culture.

1. INTRODUCTION

While most of us today have a broad and correct understanding of what we mean when we say, ‘Green HRM Practices’, it may be useful to look at how and when it began. For the uninitiated, the term Green HRM may come into existence in 1996 from the contribution by Wehrmeyer (1996) who edited a book entitled "greening people: human resources and environmental management"

It is a well-known fact that climate change and global warming are the by-products of Industrialization. It is evident that the global average temperature on Earth has increased by approximately 1.1° Celsius (1.9° Celsius) since 1880.

Before the question is asked as to why this is so important, let us learn and appreciate some facts. After all, the temperature fluctuates several degrees each day and season wherever we live.

Now, when the first quarter of the twenty-first century is nearing completion, mankind is at the crossroads as far as climate change & global warming are concerned. We are at a tipping point where any further adverse impact on our fragile environment may make things permanently irreversible making our planet unliveable for both human beings and a large variety of flora and

fauna. This is exactly what propelled thought leaders, heads of states and climate experts to put their heads together to achieve both consensus and signing of the Paris agreement.

A significant portion of the increase in the global average temperature can be attributed to the rapid expansion of industrialization and urban development. In earlier times, the primary source of income for many households was agriculture and livestock rearing, and they predominantly resided in small rural communities. The advent of factories during the 18th century marked a pivotal moment when people began entering the workforce within city-based enterprises. This shift was accompanied by subpar wages and harsh working environments. Nonetheless, despite the challenging circumstances, employment in these industries offered a comparatively improved and dependable income compared to traditional farming methods.

With discoveries such as steam power, production efficiencies increased dramatically during the Industrial Revolution. The steam engine greatly reduced the time required to produce goods. In addition to lower labor costs, more efficient production lowered product prices, particularly due to lower labour costs, opening the door to the new markets.

Industrialization evolved alongside the modern world's capitalist economy. Boosting output and profitability, businesses organised labour centrally into factories and implemented a division of labour under capitalism. Capitalist production, in comparison to the trade and skill systems that came before it, has encouraged technological development and invention with unprecedented rate.

2. SOCIO-ECONOMIC AND ENVIRONMENTAL IMPACT OF INDUSTRIAL REVOLUTION

The Industrial Revolution brought about both positive and negative impacts on society, economy, and the environment. It ushered in a new era of industrialization, which led to various advantages and disadvantages. One of the notable advantages was the creation of job opportunities. Factory employment offered better wages compared to traditional farming. With the expansion of factories and improved operational efficiency, the demand for workers increased, leading to higher overall wages. The concentration of factories and businesses around urban areas attracted a migration of people seeking work, resulting in a sudden need for urban housing. This spurred urban development and better city planning.

Furthermore, the Industrial Revolution fostered remarkable advancements in innovation and education. These developments led to groundbreaking inventions that continue to impact society today. Noteworthy inventions stemming from this period include the sewing machine, X-ray technology, the lightbulb, the calculator, the radio, the transistor, the television, the refrigerator, and anesthesia, among others.

However, it is important to note that along with these advantages, there were also significant challenges. The rapid industrialization and urbanization led to various socio-economic and environmental issues. These encompassed labor exploitation, poor working conditions, and the degradation of natural resources. The focus on mass production often resulted in the mistreatment of workers, and their health and safety were compromised in many instances. Additionally, the increased demand for resources led to environmental concerns such as pollution and deforestation. The Industrial Revolution brought about significant achievements such as the introduction of the first internal combustion engine, the incandescent light bulb, and the modern assembly line. This transformative period reshaped employment practices, technological innovations, and consequently, living arrangements. While it improved the quality of life for many, the working conditions for laborers remained substandard, prompting the emergence of labor unions that eventually advocated for better wages and improved work environments.

Despite the considerable progress achieved during this era, the rapid advancements also gave rise to a range of challenges. As individuals shifted from agrarian pursuits to industrial work for higher incomes, agricultural production dwindled. The swift expansion of industries led to heightened urban pollution. Pollution extended beyond factories, causing deteriorating living conditions in cities due to heightened demand and limited resources.

In various locales, inadequate sewage systems led to waste accumulating in streets, while industrial waste was disposed of in rivers and other natural water sources. Unlike today's safeguards, water supplies received insufficient monitoring and protection, resulting in the implementation of regulations and laws to ensure public safety.

Driven by profit motives, factory working conditions suffered, characterized by extended hours, pay, and limited breaks. Child labor became a prevalent concern, and many factory workers grappled with health issues, which bolstered the labor movement's momentum.

Furthermore, the surge of industrialization led to an exponential increase in fossil fuel usage and subsequent carbon emissions. This encompassed both direct emissions from production processes and indirect emissions from product use, such as automobiles running on liquid fuels like gasoline and diesel, as well as refrigerators emitting chlorofluorocarbons.

3. LITERATURE REVIEW

Green HRM practices encompass a range of strategies that align human resource management with environmental sustainability objectives. One prominent strategy is the adoption of sustainable recruitment and selection practices. Organizations are increasingly incorporating environmental criteria into job descriptions and candidate evaluations, ensuring that prospective employees share the company's commitment to sustainability (Ehnert & Harry, 2012).

Training and development also play a crucial role in Green HRM. Companies are investing in programs to enhance employees' environmental awareness and knowledge, which in turn fosters eco-friendly behaviors in the workplace (Renwick et al., 2016). Performance management systems are being redesigned to include sustainability-related goals, encouraging employees to contribute to the organization's environmental performance (Cunha & Rego, 2019).

Furthermore, Green HRM emphasizes the importance of employee involvement and participation in environmental initiatives. Employee engagement programs empower workers to suggest and implement sustainable practices, leading to increased innovation and a stronger organizational commitment to environmental goals (Renwick et al., 2013).

The adoption of Green HRM practices can yield various positive outcomes for both organizations and employees. Environmental sustainability efforts can enhance an organization's reputation as an environmentally responsible employer, attracting eco-conscious talent and potentially increasing employee retention rates (Jackson & Ruderman, 2019). Engaged and environmentally aware employees are more likely to be motivated, leading to improved job satisfaction and overall well-being (Ehnert et al., 2016).

Moreover, Green HRM practices contribute to the reduction of resource consumption, waste generation, and carbon emissions within organizations. These environmental improvements not only align with global sustainability goals but also often lead to cost savings through increased efficiency and reduced operational waste (Renwick et al., 2013).

4. RESEARCH OBJECTIVE

The research paper aims to investigate and analyse Green Human Resource Management (HRM) practices, exploring various options and strategies adopted by organizations to promote sustainability and environmentally responsible HR policies. The primary objective is to identify the potential outcomes and impacts of these Green HRM practices on employees, organizations,

and the broader society, fostering a deeper understanding of their effectiveness and contributions to sustainable development.

5. GREEN HRM, CONTEXT, MEANING AND INTERPRETATION

Green Human Resource Management has become academic and practising idea linked to the broader argue of sustainable development and corporate sustainability. Wehrmeyer (1996) is often credited with underpinnings with his notion that "if a company is to adopt an environmentally aware approach to its activities, the employees are the key to its success or failure"⁶.

GHRM definitions refer to "the HRM aspects of Environmental Management". A wider definition considers GHRM as "phenomena relevant to understanding relationships between organizational activities that impact the natural environment and the design, evolution, implementation and influence of HRM systems."

Some goals of GHRM include creating awareness among employees towards global environmental issues through information sharing, training, internal communication, initiating proposals and schemes for employees to participate in environment protection & promotion activities, and encouraging employees to explore and join sustainable initiatives and programs.

The need to comply with ESG guidelines and regulations has only further strengthened the Green HRM movement.

The Companies Act of 2013 introduced pioneering ESG (Environmental, Social, and Governance) disclosure mandates for Indian companies. Section 134(m) of the Act directs companies to include a report from their Board of Directors concerning energy conservation, alongside their annual financial statement. Further elaboration of this requirement can be found in Rule 8(3)(A) of the Companies (Accounts) Rules, 2014, which empowers the board to furnish details related to energy conservation.

Additionally, companies are obligated to disclose information regarding opportunities, threats, risks, and concerns as part of their yearly reporting, in accordance with Regulation 34(3) of the SEBI (Listing Obligations and Disclosure Requirements) Ordinance, 2015 (LODR Regulations).

Nevertheless, these disclosure obligations do not explicitly solicit data about the specific metrics and methodologies employed by companies to identify the opportunities or risks.

Moreover, the requirements do not compel companies to track and present their progress over time.

"The Securities and Exchange Board of India (SEBI) has obliged top one hundred listed companies to undertake business reporting and sustainability reporting (BRSR). This reporting includes several critical parameters of enterprise performance and behaviour Resource such as Energy consumption, water withdrawal and consumption, Air emissions, Green-house gases (GHG) and air pollutant emissions, Waste management, Quantum of hazardous and non-hazardous waste generated, re-used, and recycled along with waste management practices.

Understanding the green HRM movement, it would also be helpful to consider what is called the concept of triple bottom line. The three-pronged approach is also a sustainability framework that measures business's success in three areas: profit, people, and the planet.

The triple bottom line is a combination of "three Ps": profit, people, and planets. Companies can use these classes to conceptualize their environmental responsibility and determine any negative impacts to which they can cause. Thereafter, companies can integrate sustainable practices into their business models to positively influence society and the environment apart from turning a profit.

Add to this the fact that business organizations – both from the manufacturing sector and others – have had enormous impact on society besides owning and controlling vast financial and other resources and infrastructure. The top ten companies last year posted a combined revenue of \$3.7 trillion. Therefore, it is obvious that corporate and business organizations have the potential to function as instruments of social change.

Large firms have contributed a significant amount of pollution to the environment since the beginning of the Industrial Revolution, which has largely fuelled climate change and environmental concerns. According to an International Energy Agency survey, the global energy industry would emit approximately 135 million tonnes of methane into the atmosphere by 2022.

While corporations have historically been the most significant contributors to climate change, they also can accelerate positive change. Many corporate leaders are becoming aware of their social duty. This effort does not fall solely on the shoulders of the world's greatest enterprises; all organizations have both the obligation and the opportunity to reduce their carbon footprint. Adaptations such as adopting ethically sourced materials, reducing energy consumption, and optimising shipping practices are all positive steps towards long-term sustainability.

6. GREEN HRM PRACTICES

A quick and cursory look at the various activities and programs that corporates are undertaking under the umbrella of GHRM include the following:

1. Green recruitment
2. Green onboarding
3. Green learning & development activities and programs
4. Tree / sapling plantation
5. Information sharing and creating awareness among the workforce regarding climate change and environment protection.
6. Leadership talk
7. Carpooling, remote working, work from homes
8. Teleconferencing and many other similar actions

While many companies undertake some or many of the activities and programs listed above, the key aspect is the message that gets delivered while the program is being undertaken. For example, in some organizations tree / sapling plantations may be treated as a 'fun activity' or T-shirts with company logo and branding may be distributed on World Environment Day (WED).

Saplings planted in the previous year on WED may be forgotten in less than 2 weeks after they have been planted. In some organizations the importance of a sapling depends on who has planted it. For example, a sapling planted by a senior executive, or a CEO or location head is given special treatment & care as compared to a sapling planted by a lesser ranking officer.

It is also seen that in many other aspects there are double standards being practiced when it comes to dos and don'ts on various issues. For example, after declaring that there will be no sole use of plastic on our campus, packaged drinking water is still provided to those occupying leadership roles.

These types of actions give an awfully bad and negative message to the rank and file or the workforce and makes them believe that the organization is not serious about environment protection.

From an HR perspective it is felt that the programs and actions under green HRM should be aligned with the **leadership message** and a **strong organization culture** that encourages and promotes activities that protect the environment. HR systems and processes should identify and reward employee behaviour that is aimed at protection of the environment.

It needs to remember that the fundamental identity of the HR function in any organization is that of a **behavioural role model**. Therefore, HR must demonstrate through its own actions and by **ensuring leadership behaviour** that the right message(s) are getting conveyed which are aimed at building the right organization culture.

By undertaking concerted and consistent actions, HR can provide management with much needed moral authority to do and act in a manner that spreads the message that in this organization, **leaders, 'walk the talk' when it comes to environment protection, reducing carbon footprint and managing & mitigating climate change.**

If that can be done, it will be the essence of Green HRM in the organization and will lay a solid foundation for long term and effective GHRM. And in the ultimate analysis to each employee interface in ways to promote and preserve sustainable business practices as well as creating awareness, which in turn, helps the organization to work in an environmentally sustainable fashion.

Constant innovation and high impact actions and programs like bio-composting of canteen waste etc. can also be undertaken for demonstration effect which helps shape the culture of the workplace.

Certainly, the **challenges and barriers** associated with implementing Green HRM practices:

- **Resistance to Change**

Description: Employees and management might resist the adoption of new environmentally sustainable practices due to the fear of disrupting established routines, job roles, or work processes.

Impact: Resistance can hinder the successful implementation of Green HRM initiatives, delaying the achievement of sustainability goals and limiting the potential benefits.

Mitigation: Clear communication about the reasons for change, involving employees in decision-making, and providing training and support can help overcome resistance.

- **Lack of Awareness and Training**

Description: Employees and HR personnel may lack understanding of the concepts and benefits of Green HRM, making it challenging to implement and sustain environmentally friendly practices.

Impact: Without proper awareness and training, the adoption of Green HRM practices may be inconsistent or ineffective.

Mitigation: Comprehensive training programs, workshops, and awareness campaigns can educate employees and HR staff about the importance and methods of Green HRM.

- **Resource Constraints**

Description: Implementing environmentally sustainable practices might require upfront investments in technology, infrastructure, and training, which could strain an organization's financial and operational resources.

Impact: Limited resources can impede the adoption of Green HRM practices, preventing organizations from fully realizing their potential benefits.

Mitigation: Developing a clear business case highlighting the long-term cost savings and benefits of Green HRM practices can help secure necessary resources.

- **Measurement and Evaluation**

Description: Measuring and evaluating the impact of Green HRM practices on environmental sustainability and organizational outcomes can be complex and challenging.

Impact: Without accurate measurement and evaluation, it is difficult to demonstrate the effectiveness of Green HRM initiatives and make informed decisions.

Mitigation: Developing appropriate metrics, data collection methods, and evaluation frameworks can help track the progress and impact of Green HRM practices.

- **Cultural and Institutional Factors**

Description: Organizational cultures that prioritize traditional business practices over sustainability, as well as institutional barriers within the industry or region, can hinder the adoption of Green HRM.

Impact: Deep-rooted cultural norms and institutional factors can slow down or prevent the integration of environmentally friendly practices into HRM processes.

Mitigation: Leadership commitment, fostering a culture of sustainability, and engaging with external stakeholders to address institutional barriers can help overcome these challenges.

In navigating these challenges and barriers, organizations can proactively address each issue to ensure the successful implementation and integration of Green HRM practices. By doing so, they can maximize the benefits of environmental sustainability, employee well-being, and organizational performance.

7. CONCLUSION

The HR function has an important role in building an organizational culture that promotes environmental awareness and talks about the individual and company-level carbon footprints of employees. HR is responsible for planning, prioritizing, and strategizing the organization's capabilities to achieve sustainability goals and ensure environmental protection. In addition, as a model of organizational behavior, HR has the potential to influence management and promote activities consistent with the message of sustainability.

Although the Industrial Revolution brought considerable progress, it also contributed to environmental issues such as climate change, pollution, and the depletion of natural resources. Today, companies, especially large companies, are the main cause of environmental problems, but they also hold the key to positive change. Green HRM practices can be an effective way for organizations to adopt sustainable practices, reduce environmental impact and adapt to the three-way bottom-line concept of profit, people, and planet.

For GHRM to be effective, it is critical that programs and activities align with the organization's management message and reinforce the desired culture. HR systems and processes must recognize and reward the environmentally sustainable behaviour of employees. By leading by example, the HR manager can give management the moral authority to adopt sustainable practices and communicate the importance of environmental protection.

In conclusion, green HRM practices are necessary not only to achieve net zero goals and meet ESG guidelines, but also to promote a culture of sustainable development in organizations. By integrating environmental awareness into HR practices and encouraging green initiatives, companies can make a positive environmental impact and achieve long-term success. Effective GHRM implementation can help organizations operate in an environmentally sustainable manner and have a positive effect on society and the environment.

8. LIMITATION OF THE STUDY

- An issue arises from the absence of uniform definitions and frameworks for Green HRM practices. Different scholars and organizations employ diverse terminologies, complicating the task of comparing and generalizing findings across studies.
- The effects of Green HRM practices and their results can significantly differ across diverse cultural settings due to disparities in environmental awareness, regulations, and societal norms. Consequently, conclusions drawn from one cultural context may not seamlessly apply to another.
- Establishing a causal relationship between Green HRM practices and favorable outcomes presents challenges. External factors, including economic conditions and industry trends, could exert influence on observed results, making it intricate to pinpoint causality.
- While numerous investigations underscore outcomes tied to employee engagement and organizational reputation, gauging broader sustainability impacts like reduced carbon emissions or resource utilization can prove intricate and prone to measurement difficulties.

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ROLE OF UNIVERSITY STRUCTURE IN SHAPING SUSTAINABLE RESEARCH ENVIRONMENT

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ABSTRACT

The structure of the university is crucial in fostering and maintaining a research climate that is supportive of the pursuit of long-lasting and significant scholarly undertakings. This abstract explores the various facets of how a university's organisational structure has a substantial impact on the development, upkeep, and construction of a sustainable research ecosystem. University dimensions (Administrative dimension, Academic Faculties and Departments, Governance and Decision-making, Reputation dimension and global dimension) plays a crucial role in the sustainable research environment. By encouraging multidisciplinary collaboration, distributing resources, and fostering a culture of information sharing, the university structure acts as the foundation of a sustainable research environment. The institution is positioned as a focus for cutting-edge and significant research thanks to a well-designed structure, advancing the cause of a more sustainable future. Understanding the critical function of university structures in forming research environments becomes essential for enabling significant change as the urgency of the global sustainability movement increases.

Keywords: University Structure, Knowledge, Environment, Research and Sustainable.

1. INTRODUCTION

Universities today are focusing more on innovation and working to put knowledge into practice as well as developing fresh concepts. It is widely accepted that innovations, which combine concepts and inventive efforts from earlier experience, can assist in resolving difficulties in the future (Bartel & Garud, 2009). The organisation and structure of universities are crucial in determining how the academic, administrative, and research tasks that power the education sector are carried out. Universities have a long history that spans several centuries. They have developed into sophisticated organisations that serve a variety of academic fields, promote innovation, and make a substantial contribution to the intellectual and socioeconomic progress of society. With references to scholarly writings and reliable sources, this essay offers an in-depth analysis of the main university structure components, examining their historical origins, administrative divisions, academic faculties, and key administrative people. Innovation requires creativity and interaction (Castillo-Vergara et al., 2021), It refers to the innovation, research, and educational operations of universities, and is described by the notion of the knowledge triangle (Tercanli & Jongbloed, 2022; Turcinovic, 2013). There are still new ideas that expand on this idea, like "networked university" or "engaged university." (Stolze, 2021). Delivering empirical data that illustrates the interactions between research, education, and entrepreneurial innovation is thus necessary. The administrative divisions, governing bodies, and support services are only a few of the components that make up an institution's organisational structure. While administrative entities enable effective operations, the division of faculties and departments facilitates the creation and distribution of specialised knowledge. Boards of trustees and faculty senates are examples of governance bodies that play a crucial role in decision-making and determining the institution's strategic orientation.

HISTORICAL EVOLUTION OF ACADEMIC ORGANISATION:

The origins of the current university system may be found in the Middle Ages, when establishments like the University of Bologna, founded in 1088, and the University of Paris, founded in the 12th century, set the groundwork for it. These early universities were generally organised around the faculties of Arts, Theology, Law, and Medicine, each of which was overseen by a distinguished professor and subject to its own set of rules. The development of academic disciplines and the associated organisational systems during the Middle Ages is illuminated by notable books like Lynn Thorndike's "A History of Magic and Experimental Science", (2001). Over the years, universities' structures have changed to accommodate shifting societal demands, educational philosophies, and technological developments. The mediaeval paradigm of higher education, which featured discrete faculties and a hierarchical structure, has changed in response to interdisciplinary study, globalisation, and the development of digital technology. Universities today use a variety of structural models, including hybrid, research-focused, and teaching-focused ones.

2. LITERATURE REVIEW:

(Aydin O. T, 2017): This paper intends to raise awareness of "research performance," which plays a crucial role in university competition. The study makes an effort to summarise the findings of a thorough literature evaluation in the area of higher education research performance in order to achieve this goal. First, research performance literature, its classification as an addressed along with its signs. Then, a thorough presentation of the variables affecting research performance follows. A conceptual framework that will be helpful to all university workers is offered at the study's conclusion.

(Mir M. Ali, Partha Bhattacharyya & Anthony J. Olejniczak, 2010): According to this study, research grants are crucial to the creation and dissemination of new knowledge. Securing competitive research grants also improves a faculty member's reputation personally, which contributes to a favourable opinion of the academic institutions that employ them. This research aims to quantify how faculty scholarly output and institutional features affect the total number and dollar amount of federally sponsored competitive research grants received by scholars at American institutions. This study investigates whether the likelihood that research professors will be awarded competitive grants varies depending on their institutional affiliation, publication record, and reputation.

(Wallgren L.& Dahlgren L.O, 2015): The Swedish Graduate School for Applied IT and Software Engineering conducted an empirical survey of industrial PhD students, which is the subject of this article. This study focuses on how the type of activity, the gap in competence between other company employees and university faculty, the nature of the thesis project, the perspective on time between companies and universities, and the competence of other company employees influence the doctoral student's situation, identity, support, and participation in knowledge development. In semi-structured interviews, the students were asked about their experiences splitting their postgraduate studies between academic and industrial settings. According to the findings of the initial investigation, there are significant disparities across firms in terms of their traditions and desire to engage in collaborative knowledge development with universities.

(Thune. T, 2013): This study reviews the literature on (1) theoretical presumptions about the functions that doctoral students are supposed to perform in university-industry relationships, and (2) empirical studies of doctoral students' interactions with industry and their results. The paper's objective is to advance hypotheses for additional study on the interactions between doctorate students and industry.

(**Corejova T, Rostasova M, J. Ciba 2019**): Identification of the impact of the university on students' creative thinking and the university's creative expression in the region will be the key research problem covered in the article. We have established six study objectives that correspond to the questionnaire's questions in order to solve the research problem. One of the results of the problem's resolution is the suggestion of a so-called modified 3T, which is created using just the sub-indices for which statistics are accessible both nationally and regionally in the Slovak Republic.

(**Meusburger,P, 2018**): The success of a scholar's academic and research career does not simply depend on talent, motivation, and an abundance of ideas. Four issues are addressed in this article: Which components make up a local knowledge environment? How may a local knowledge environment impact the processes of learning and research? How can one assess the effects of a knowledge environment while avoiding the determinism trap? Which theoretical ideas can help with the examination of knowledge environments and the justification of their effects? Before a creative process may take place, a stimulating environment and a skilled person must come together and interact.

3. ASPECTS OF UNIVERSITY STRUCTURE

Internal Aspects of University Structure

- The quantity and calibre of the university's scientific and research endeavours.
- Infrastructure exists in the form of labs, libraries, and information systems.
- Establishing collaborations between academics and business, as well as their results.
- Constructing a university science park and research facility with a focus on technology.
- There have never been any intolerance-related complaints.

External Aspects of University Structure

- Existence of present and possible new university partners who are able and eager to construct creative urban environments.
- Help build the infrastructure needed for both technological and non-technological advances.
- In the area of the region's technological advancement, support for regional self-government is provided by the Regional Research Innovation Strategy for 2015–2020. (**Source: Ciba, 2015**)

4. SOME OF THE KEY DIMENSIONS OF A UNIVERSITY STRUCTURE INCLUDE:

Academic Dimension: This encompasses all academic programs and courses offered by the university, including undergraduate, graduate, and doctoral programs, as well as research initiatives and academic collaborations.

Research Dimension: This includes the research focus and output of the university, as well as the quality of its research infrastructure and the impact of its research findings.

Student Dimension: This encompasses the student body, including demographic information, enrolment, retention rates, and student satisfaction levels.

Faculty Dimension: This includes information about the university's faculty, including their qualifications, research interests, and teaching experience.

Physical Dimension: This encompasses the physical facilities of the university, including classrooms, libraries, research labs, housing, and other student services.

Financial Dimension: This encompasses the financial resources of the university, including funding sources, endowments, and budgeting priorities.

Reputation Dimension: This encompasses the university's reputation and standing within the academic community, including its ranking, recognition, and accreditation status.

Global Dimension: This encompasses the university's international reach and impact, including its collaborations, partnerships, and exchange programs with institutions and organizations around the world.

5. ENVIRONMENTAL KNOWLEDGE AND ACADEMIC CULTURE:

The learning, research, and collaboration environments found in universities include both actual and virtual spaces. The process of generating new knowledge and scholarly relationships is influenced by academic culture, values, and conventions. Research facilities, libraries, labs, digital resources, and academic conferences are all part of the knowledge ecosystem and all contribute to the creation and exchange of knowledge.

6. UNIVERSITIES' KNOWLEDGE ENVIRONMENTS: A FEW THEORETICAL AND METHODOLOGICAL CONSIDERATIONS

The majority of studies on scientific creativity up until the early 1980s focused heavily on the traits of academics. Even though this is where research activities, creative processes, supervisory oversight, and encouragement take place, few authors felt it was crucial to integrate the social, cultural, and scientific milieu in their theoretical concerns. Little attention was paid to regional differences in educational opportunities, access to resources, academic freedom, and other elements impacting researchers' scientific accomplishments. Space discrepancies in research cultures and scientific practices also got little attention. A person's academic success is determined by a range of factors, in addition to competence, ideas, drive, endurance, and other personal attributes, according to researchers who study creativity in the 1980s and 1990s.

7. RESEARCH REQUIRES PARTICULAR ENVIRONMENTS

Researchers rely on research infrastructure, funding, in-person interactions with eminent experts from many fields, peer review and support, and knowledgeable important figures. There is no doubt that the environment in which academics act can affect their cognition, goals, motives, and emotions. Other academics must validate and accept new scientific findings. The history of science is replete with instances of inventive researchers and creative thinkers who encountered opposition, misinterpretation, neglect, and hatred at particular colleges. There are several instances of researchers, however, who upgrade their institution's resources, hire new academic staff, change the regulations, conventions, and leadership style in order to gradually alter or disrupt the knowledge environment of their workplace. The history of science is replete with instances of inventive researchers and creative thinkers who encountered opposition, misinterpretation, neglect, and hatred at particular colleges. There are several instances of researchers, however, who upgrade their institution's resources, hire new academic staff, change the regulations, conventions, and leadership style in order to gradually alter or disrupt the knowledge environment of their workplace. As a result of systemic interdependencies and causal interactions between individual, monetary, material, and nonmaterial resources pertinent to the creation, dissemination, and application of scientific knowledge at a particular location or environment, a university's knowledge environment can be defined.

8. WHAT ELEMENTS MAKE UP A LOCAL KNOWLEDGE ENVIRONMENT?

A local knowledge environment is a geographically defined network of resources, organisations, and interactions that supports the production, exchange, and use of knowledge. It is essential for promoting local innovation, economic growth, and cultural advancement. This article examines the essential elements that make up a local knowledge ecosystem, emphasising their importance and interactions. Human beings (such as academics, students, technical staff, and administrative staff), with their cognitive abilities, competencies, skills, experiences, scientific reputations,

personal networks, emotions, and interpersonal communication styles, are the most crucial component of a knowledge environment at any given location.

Educational Institutions: Universities, colleges, and technical schools are only a few examples of the educational institutions that are essential parts of a local knowledge environment. These institutions foster a pool of gifted people who contribute to the regional knowledge ecosystem by offering formal education, opportunities for research, and skill development.

Research and Innovation Centres: Physical gathering places for researchers, entrepreneurs, and creative thinkers include research centres, innovation hubs, and technology parks. These facilities encourage interdisciplinary cooperation, information sharing, and the creation of ground-breaking responses to regional problems.

Cultural Institutions: Museums, art galleries, libraries, and cultural organizations contribute to the local knowledge environment by preserving heritage, promoting artistic expression, and encouraging intellectual engagement. They serve as spaces for dialogue, exploration, and the preservation of local traditions.

Local Industries and Businesses: Local businesses and industries work in harmony with the community's knowledge base. They promote economic expansion, advance the application of knowledge in real-world settings, and open doors for industrial and academic cooperation.

Networking and Collaboration Platforms: Meetings in the community, conferences, workshops, and networking events provide venues for collaboration, knowledge sharing, and idea-sharing. These connections promote a sense of belonging and allow for the exchange of ideas.

Government and Policy Support: The local knowledge environment is significantly shaped by government incentives, laws, and financing methods. Supportive legislation can promote study, invention, and the growth of a knowledge-based economy.

Social and Community Engagement: Active social and community interaction is essential to a thriving local knowledge environment. Participation in educational and cultural events within the community encourages a sense of ownership and knowledge co-creation.

9. RESOURCES, BOTH MATERIAL AND FINANCIAL

The basic material resources of a university, including its financial stability and the calibre of its research infrastructure (including libraries, labs, computing centres, archives, and other specialised or expensive research facilities), play a role in whether or not eminent scholars and gifted students are drawn to it. Many novel research issues can only be empirically investigated if the most up-to-date tools and analytical techniques are available, or if a researcher has access to previously untapped data sources or archives. The fewer colleges that can afford to buy such research infrastructure, the more expensive it is. The structural and material resources of a university are crucial to its academic environment. Universities can perform cutting-edge research, deliver high-quality instruction, and foster an innovative environment thanks to these resources. This chapter highlights the distribution, effects, and difficulties of financial and material resources as they shape university structures and intellectual settings.

Allocation and Management of Resources: In universities, there are intricate decision-making procedures involved in the distribution of financial and material resources. These funds can be used for academic salaries, research grants, building infrastructure, libraries, labs, technology, and other things. To balance the many needs of teaching, research, and student support, as well as to ensure optimal utilisation and sustainability, effective resource management is essential.

Impact on Teaching and Learning: The effectiveness of teaching and learning is directly impacted by adequate financial and material resources. The educational experience is improved

by modern technologies, well-equipped classrooms, and current learning materials. Students have access to a variety of material through libraries and digital resources, which promotes independent research and critical thinking abilities.

Research and Innovation: University-based research and innovation are advanced by financial and material resources. Innovative research and cross-disciplinary collaboration are facilitated through research funds, cutting-edge facilities, and specialised tools. A university's reputation is improved through investing in research infrastructure, which also benefits the knowledge ecosystem.

Infrastructure and Campus Development: The learning and research environment is shaped by physical infrastructure, which includes classrooms, labs, libraries, and recreation centres. Campuses with a good layout offer areas for fostering community, student participation, and academic connection. An energetic university environment is facilitated by investments in sustainable and contemporary infrastructure.

Challenges and Future Directions: Despite their significance, budgetary restrictions, shifting financing sources, and escalating expenditures are only a few of the difficulties that financial and material resources frequently confront. Universities need to adapt by looking at alternative funding options, encouraging public-private partnerships, and allocating resources as efficiently as possible.

10. INSTITUTIONAL RULES AND LOGICS, ORGANISATIONAL STRUCTURES, AND SCIENTIFIC CULTURES

External Factors of Influence:

Universities have never been able to completely escape local and national politics. Public colleges may be less impacted by a state's science policy than are private universities, but no university is immune to political influence. Universities' organisational, operational, and overall educational environments are shaped by a wide range of external variables. These elements range from sociological and economic trends to governmental regulations and technology developments. Economic conditions are a crucial external element that may have an impact on funding availability and the viability of institutions (Altbach, 2001). Insofar as they impact funding allocation, accreditation requirements, and research agendas, governmental rules and laws also play a crucial role (Bleiklie et al., 2000). Programme options and curriculum design are impacted by societal and demographic changes, such as shifting student populations and workforce requirements (Teichler, 2007). technological progress incorporates digital learning tools and transforming teaching strategies, altering pedagogical strategies and operational procedures (Bates, 2019). Additionally, initiatives to internationalise and globalise have an impact on cross-border cooperation and universities' ability to compete. (Marginson, 2011).

11. WHAT EFFECTS CAN A KNOWLEDGE ENVIRONMENT HAVE ON A PLACE'S LEARNING AND RESEARCH PROCESSES?

Universities Offer Unequal Learning and Research Opportunities: In theory, human intellect and cognitive processes are possible anywhere. Why might cognition, motivation, learning, and research processes be impacted by a circumstance, setting, place, venue, or environment? The solution is fairly straightforward. Different locations and workplaces offer various learning opportunities, chances for face-to-face interaction, sources for research, access to various networks, and various incentives and barriers facilitating or obstructing particular learning processes and behaviours.

The academic standing, scientific achievements, resources, domain-specific authority, innovativeness, and location appeal of universities vary. Different departments (faculties, universities) have different research cultures. They offer diverse realities, exercise varying

degrees of control and autonomy, and instruct students using a range of methodologies. One department may be an innovator or an early adopter of a new research topic, theory, or methodology, whereas another department may be a late adopter. Some of these actors aren't even conscious of the important developments in their industry that they have missed.

Research universities and non-university research organisations that have a strong international scientific reputation, ample research funding, and the ability to recruit the top people on a global scale are at the top of the hierarchy. Universities that primarily teach and receive a high proportion of their students from a relatively small catchment area are at the bottom of the pyramid. These institutions lack significant research funding, are unable to hire internationally renowned scholars, are not permitted to submit grant proposals to significant research foundations, and are unable to award doctorates.

12. CONCLUSION

As a result of improvements in pedagogy, research, technology, and global interconnectedness, universities' dynamic character ensures that their organisational structure will continue to adapt and evolve. For academics, educators, and policymakers alike, understanding how universities are structured is essential since they continue to influence the intellectual landscape and advance human knowledge. Universities have a dynamic and complicated structure that reflects past traditions, present trends, and aspirations for the future. Stakeholders can help create thriving, innovative, and globally engaged universities that continue to shape the intellectual landscape of societies by understanding the evolution of university structures, the elements that make up these institutions, and the factors influencing their knowledge environment.

13. LIMITATIONS AND FUTURE DIRECTIONS OF THE STUDY:

This study is a review-based study which examines only one construct that affects the research environment that is university structure, where data collection and research methodology are missing. There are a number of constructs which affect the research environment. There can be a study on psychological capital, creativity of Ph.D. scholars and many more dimensions which also affect the environment of the research. Also, there is studying only about university, but a research environment is needed everywhere whatever be the business. Hence, there can be done a study on the corporate sector and analyse which factors affect the research environment of a company.

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GREEN HRM PRACTICES IN ORGANIZATIONS- A DETAILED OVERVIEW

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ABSTRACT

The concept of Green Human Resource Management (HRM) has gained prominence as organizations worldwide recognize the imperative of integrating environmental sustainability into their operations. This abstract delves into the realm of Green HRM practices within organizations, elucidating their significance and multifaceted impact. Green HRM practices in Organization. Green HRM entails the infusion of ecological considerations into HRM strategies, policies, and procedures. This encompasses sustainable recruitment and onboarding, eco-conscious training and development, environmentally oriented performance appraisals, and fostering a green corporate culture. Such practices align organizational goals with environmental responsibility, fostering a harmonious coexistence between business growth and ecological well-being. This abstract underscore the multifarious dimensions of Green HRM, elucidating its effects on employee engagement, motivation, and productivity. By embracing environmentally friendly HRM practices, organizations can invigorate employee morale and commitment, nurturing a sense of purpose by contributing to global sustainability efforts. Moreover, the cultivation of a green work ethos can enhance an organization's image and attractiveness to socially conscious stakeholders. Through an in-depth synthesis of existing literature, this abstract accentuates the pivotal role of leadership advocacy, employee involvement, and innovative HRM strategies in the successful implementation of Green HRM practices. It underscores the necessity for an integrated approach that interweaves environmental considerations into the fabric of HRM, underscoring the value of adopting sustainable practices as an integral facet of organizational strategy. In conclusion, Green HRM emerges as a potent instrument for organizations endeavoring to achieve equilibrium between profitability and ecological preservation. By weaving eco-centric principles into HRM functions, organizations stand to reap rewards in terms of enhanced competitiveness, heightened employee engagement, and positive environmental contributions. This abstract serves as a clarion call for intensified research and pragmatic integration of Green HRM practices, propelling organizations towards a more sustainable and conscientious future.

Keywords: Green, Sustainable, Practices and Environment.

1. INTRODUCTION

As organizations navigate the complex landscape of modern business, the integration of Green HRM practices has emerged as a strategic imperative rather than merely a commendable initiative. Beyond the traditional focus of HRM on recruitment, training, compensation, and employee well-being, Green HRM takes a holistic approach that considers the environmental impact of these processes. By aligning HR practices with sustainability goals, organizations can create a harmonious balance between operational efficiency, environmental stewardship, and employee satisfaction. The multifaceted nature of Green HRM encompasses a range of initiatives, from implementing eco-friendly policies and promoting energy-efficient practices to fostering a culture of environmental responsibility among employees. This approach not only contributes to a reduction in an organization's carbon footprint but also instills a sense of purpose and pride in employees, who become active participants in the organization's commitment to a greener future. However, while the benefits of Green HRM are substantial, its implementation is not without challenges. Organizations must navigate potential conflicts

between environmental objectives and traditional HR practices, ensuring that the pursuit of sustainability does not compromise employee welfare or organizational effectiveness. Additionally, adapting to the dynamic landscape of sustainable practices requires continuous learning, innovation, and flexibility on the part of HR professionals. In the pages that follow, we will delve deeper into the key principles of Green HRM, exploring how organizations can successfully integrate sustainable practices into recruitment, training, performance management, and employee engagement. We will also examine real-world examples of organizations that have embraced Green HRM, highlighting the transformative outcomes they have achieved. By fostering a comprehensive understanding of Green HRM practices and their implications, we can uncover effective strategies for organizations to navigate the intersection of environmental responsibility and human resource management, ultimately forging a path towards a greener, more sustainable future.

Biophilia and Nature Integration:

One fascinating concept related to green HRM is "biophilia." This term refers to the innate human connection to nature. Companies that incorporate biophilic design elements, such as natural lighting, indoor plants, and access to outdoor spaces, into their workplace can enhance employees' mental well-being, creativity, and overall satisfaction.

2. LITERATURE REVIEW

The study of Kuo et al., (2022) concentrated on green HRM practices such as green pay and reward, green performance and appraisal, green training and development, and green recruitment and selection, and its effect on environmental performance via a mediated relationship of green innovation. His study revealed that there are good relationships between green pay and reward, green recruitment and selection, green performance and appraisal, green training and development have an impact on environmental performance through green innovation. (Duggal & Jain, 2020), in their study emphasized the importance of Employee participation in green HRM practices. They found that Employee involvement in Green projects increases the likelihood of effective green management. Employee involvement in Green HRM practices has resulted in improved environmental management systems in the workplace, such as more effective and efficient resource utilization. Their study also outlined the social implications of Green HRM practices. The research by (Mishra, 2017) demonstrated the importance of top-management support and cross-departmental learning in promoting green behaviors among staff. The study's goal was to better understand the state of green HRM practices in the Indian manufacturing sector and to look at aspects that can boost green behavior. The study suggested that the organizations should offer official education programs and training to their staff in order to promote pro-environmental behavior. Formal training program evaluation and feedback should be documented as well. The effects of green HRM practices on Organizations sustainability through the mediating effects of environment performance and employee performance was measured in another research in the textile industry of Pakistan. The study of (Mishra, 2017) suggested that Organizations can more sustainably improve their environmental performance by comprehending and expanding the scope and depth of green HRM practices. In their study (Mehta & Chugan, 2015) tested a conceptual model incorporating the effects of psychological green climate and individual green values, they first established measurements for green HRM. Then, they drew on the behavioral HRM and psychological climate literature as well as the supplies-values fit theory. The research by (Opatha, 2013) concluded that the conceptualization and operationalization of many constructs in the subject of Green HRM will be major problems for researchers, as it will be necessary to create legitimate and dependable instruments. The findings of the study of (Bombiak & Marciniuk-Kluska, 2018) concluded that It is vital to improve awareness and distribute information on the influence Green HRM can have on sustainable growth in

organizations in order to broaden the scope of the implementation of the Green HRM concept in Polish new firms.

3. HOW GREEN HRM PRACTICES EVOLVED OVER TIME

Green Human Resource Management (HRM) practices have evolved over time in response to shifting societal values, environmental awareness, regulatory changes, and the recognition of the business benefits associated with sustainability. Here's a general overview of how green HRM practices have evolved:

1. Early Awareness (1980s-1990s)

Early signs of environmental awareness led to a growing understanding of the need for sustainable business practices. Some organizations began adopting basic environmentally friendly policies, such as recycling programs.

2. Emergence of Sustainability (2000s)

The concept of sustainability gained traction, influencing business practices across various industries. Organizations started recognizing the role of HRM in supporting sustainability goals.

3. Integration into HR Strategy (Late 2000s - Early 2010s)

Organizations began integrating sustainability principles into their HR strategies and policies. Employee engagement in sustainability initiatives became a focus, with initiatives like volunteer opportunities and green training.

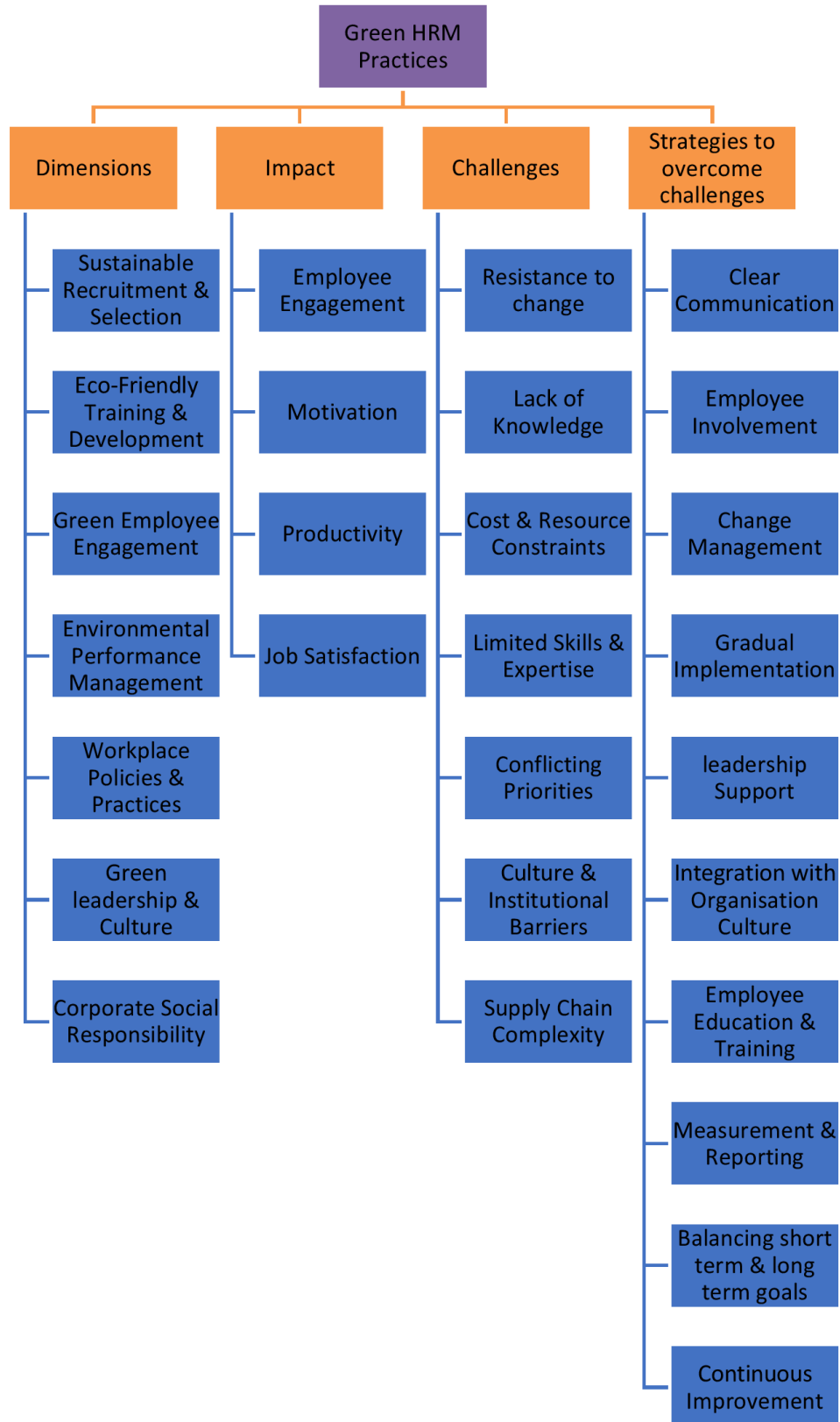
4. Mainstream Adoption (Mid 2010s - Early 2020s)

Green HRM practices became more mainstream as organizations realized the positive impacts on both the environment and their bottom line. Flexible work arrangements, telecommuting, and energy-efficient workplace designs gained prominence.

5. Emphasis on Employee Well-being (Late 2010s - Present)

The link between sustainability and employee well-being was recognized, leading to the integration of green practices in wellness programs. More emphasis on promoting work-life balance and reducing stress through sustainable practices.

Figure 1: An overview of Green HRM practices



As societal concerns about environmental sustainability grow and organizations face increasing pressure to reduce their carbon footprint, green HRM practices are likely to continue evolving. Organizations will likely emphasize data-driven decision-making, innovation in sustainable HR initiatives, and stronger alignment of green HRM with overall business strategies.

4. DIMENSIONS OF GREEN HRM PRACTICES

Green Human Resource Management (HRM) encompasses a range of dimensions that integrate environmental sustainability and corporate social responsibility into HRM practices within an organization. These dimensions highlight how HRM can contribute to environmental conservation, social well-being, and long-term organizational success. Here are the key dimensions of Green HRM:

1. **Sustainable Recruitment and Selection:** Green HRM involves incorporating environmentally conscious criteria into the recruitment and selection process. This may include hiring individuals who share the organization's sustainability values, skills to drive green initiatives, or relevant experience in eco-friendly industries.
2. **Eco-Friendly Training and Development:** This dimension focuses on providing training and development programs that equip employees with knowledge and skills related to environmental sustainability. Training can cover topics such as waste reduction, energy conservation, and eco-friendly practices, enabling employees to contribute to the organization's green objectives.
3. **Green Employee Engagement:** Employee engagement strategies are designed to create a sense of ownership and commitment among employees toward the organization's environmental goals. Encouraging employee participation in eco-friendly initiatives, environmental committees, and volunteering for community sustainability projects are examples of green employee engagement.
4. **Environmental Performance Management:** Green HRM emphasizes setting performance goals that align with environmental objectives. Managers can assess and reward employees based on their contributions to sustainable practices, fostering a culture of continuous improvement in environmental performance.
5. **Workplace Policies and Practices:** Organizations can implement policies that promote environmentally responsible behaviors among employees. This may involve measures such as waste reduction, recycling programs, energy-efficient practices, and promoting the use of sustainable transportation options.
6. **Green Leadership and Culture:** Leadership plays a critical role in driving and sustaining a green culture within the organization. Green HRM encourages leaders to model environmentally conscious behaviors, communicate the importance of sustainability, and integrate green initiatives into the organization's strategic vision.
7. **Corporate Social Responsibility (CSR):** Green HRM aligns with the broader CSR initiatives of the organization. It involves participating in environmentally friendly community projects, supporting environmental causes, and transparently communicating the organization's commitment to sustainability.

By incorporating these dimensions into their HRM practices, organizations can effectively integrate environmental sustainability into their core business operations and contribute to a greener, more sustainable future.

5. IMPACT OF GREEN HRM PRACTICES

Green Human Resource Management (HRM) practices have a significant impact on employee engagement, motivation, and productivity, leading to positive outcomes for both employees and the organization. Here's how these practices can influence each of these areas:

1. Employee Engagement:

Green HRM practices can enhance employee engagement by fostering a sense of purpose and connection to the organization's environmental and social responsibilities. When employees perceive that their work contributes to a greater cause, such as sustainability and environmental protection, they are more likely to be emotionally invested in their roles. Engagement is further bolstered by involving employees in eco-friendly initiatives, encouraging them to take ownership of environmental projects, and providing opportunities for volunteering in sustainable activities. As employees become more engaged, they are likely to demonstrate higher levels of commitment, enthusiasm, and a willingness to go above and beyond in their roles.

2. Motivation:

Green HRM practices can positively impact employee motivation by aligning individual values with the organization's sustainability goals. When employees feel that their personal beliefs and values are congruent with the organization's mission, they are more motivated to contribute their best efforts. Additionally, the opportunity to learn new skills related to sustainability and participate in eco-friendly projects can provide a sense of growth and development, further enhancing motivation. Recognition and rewards for green contributions also play a role in motivating employees to actively participate in green initiatives.

3. Productivity:

Green HRM practices can lead to improved productivity through various channels. First, eco-friendly workplace policies and practices, such as energy-efficient technologies and waste reduction initiatives, can create a more efficient and organized work environment. This, in turn, can minimize distractions and streamline work processes, contributing to increased productivity. Second, the emphasis on employee well-being, often a focus of Green HRM, can lead to healthier and more motivated employees, resulting in higher levels of productivity. Third, the integration of sustainable practices can encourage innovative thinking and problem-solving, leading to process improvements and increased efficiency.

4. Job Satisfaction:

Job satisfaction is closely linked to employee engagement, motivation, and productivity. Green HRM practices contribute to job satisfaction by providing employees with a sense of meaning and fulfillment in their work. Employees who are proud of their organization's commitment to sustainability are likely to experience greater job satisfaction. The opportunity to participate in green initiatives, collaborate on environmentally friendly projects, and contribute to positive environmental outcomes can all contribute to a higher overall sense of job satisfaction.

6. CHALLENGES TO GREEN HRM PRACTICES

Adopting Green Human Resource Management (HRM) practices can be a transformative and beneficial process for organizations, but it also comes with several challenges. These challenges may vary based on the organization's size, industry, and cultural context. Here are some common challenges faced in the adoption of Green HRM practices:

1. **Resistance to Change:** Introducing new practices and policies may face resistance from employees, especially if they perceive Green HRM initiatives as additional responsibilities or disruptions to existing routines. Overcoming resistance and gaining buy-in from all levels of the organization is crucial for successful implementation.

2. **Lack of Awareness and Knowledge:** Many employees and HR professionals may not fully understand the principles and benefits of Green HRM. A lack of awareness and knowledge about environmental issues and sustainable practices can hinder the adoption of green initiatives.
3. **Cost and Resource Constraints:** Implementing sustainable practices may require initial investments in eco-friendly technologies, training programs, and infrastructure. Small and medium-sized enterprises (SMEs) or organizations with limited financial resources may find it challenging to allocate funds for these initiatives.
4. **Limited Skills and Expertise:** HR professionals may lack the expertise and knowledge required to design and implement effective Green HRM practices. Specialized training and development are essential to equip HR teams with the necessary skills.
5. **Conflicting Priorities:** Organizations may face competing priorities, with Green HRM initiatives being overshadowed by other business objectives. Finding a balance between environmental sustainability and economic objectives can be challenging.
6. **Cultural and Institutional Barriers:** In some cultures and industries, sustainability may not be a prevalent focus. Overcoming cultural barriers and promoting a green mindset within the organization may require significant effort.
7. **Supply Chain Complexity:** Green HRM practices extend beyond the organization to its supply chain. Ensuring that suppliers and vendors adhere to sustainable practices can be challenging, especially in global supply chains.

7. STRATEGIES TO OVERCOME CHALLENGES FACED IN IMPLEMENTATION OF GREEN HRM PRACTICES.

1. Clear Communication

Ensure that the rationale and benefits of green HRM practices are communicated transparently to employees, emphasizing how these practices align with the organization's values and long-term sustainability goals.

2. Employee Involvement

Involve employees in the planning and implementation of green initiatives. Their input can help identify potential challenges and come up with solutions that are more likely to be well-received.

3. Change Management

Implement change management strategies to address resistance and ensure a smooth transition. This includes creating a shared vision, providing training, and addressing concerns.

4. Gradual Implementation

Gradually introduce green HRM practices rather than implementing significant changes all at once. This allows employees to adapt and provides room for feedback.

5. Leadership Support

Gain support from senior leadership to prioritize and champion green HRM initiatives. Their endorsement can help overcome resistance and allocate necessary resources.

6. Integration with Organizational Culture

Ensure that green HRM practices align with the organization's existing culture and values. This integration increases the likelihood of employee acceptance.

7. Balancing Short Term and Long Term Goals

Find ways to balance short-term financial goals with long-term sustainability objectives. Highlight how green initiatives can also lead to cost savings and increased efficiency over time.

8. Employee Education and Training

Offer training and educational programs to employees about the importance and benefits of green HRM practices. This can help address misconceptions and enhance engagement.

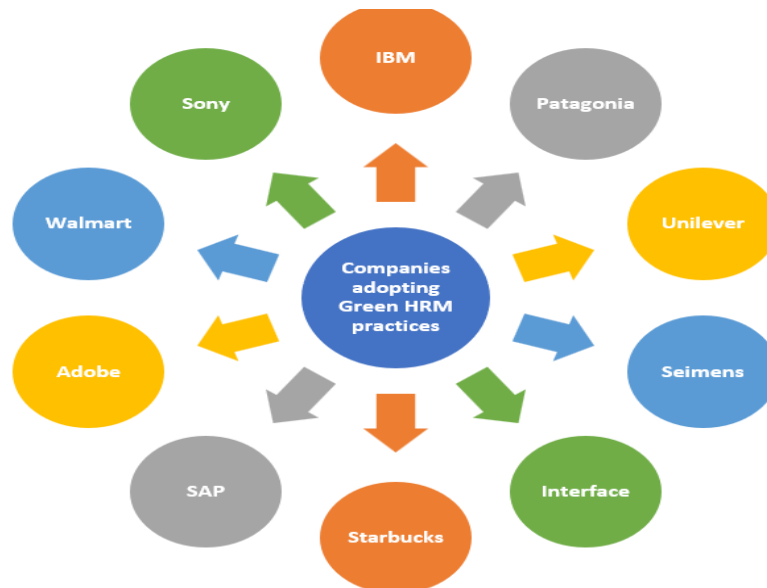
9. Measurement and Reporting

Establish clear metrics for measuring the impact of green HRM practices and regularly report progress. This demonstrates the tangible benefits and accountability.

10. Continuous Improvement

Foster a culture of continuous improvement for green HRM practices. Regularly assess their effectiveness and make adjustments based on feedback and changing circumstances.

8. THE COMPANIES WHICH ADOPTED GREEN HRM PRACTICES.



1. IBM

IBM is known for its commitment to environmental sustainability and has integrated green HRM practices.

Result: IBM reported a 35% reduction in energy consumption and a decrease in greenhouse gas emissions, showcasing their dedication to both technology innovation and sustainable operations.

2. Patagonia

Patagonia, an outdoor clothing company, has a strong focus on sustainability and green practices.

Result: Patagonia's green HRM initiatives, such as offering employee childcare and encouraging use of public transportation, have led to a higher employee retention rate and a strong company culture centered around environmental values.

3. Unilever,

A consumer goods company, has implemented various green HRM practices across its global operations.

Result: By promoting sustainable practices among employees, Unilever has reduced its operational waste and water consumption, while also experiencing increased employee engagement and productivity.

4. Siemens

Siemens, a multinational conglomerate, emphasizes green HRM as part of its broader sustainability strategy.

Result: Through initiatives like employee education on energy conservation and sustainable travel options, Siemens has achieved significant reductions in carbon emissions, leading to cost savings and enhanced brand reputation.

5. Interface

Interface, a modular carpet manufacturer, is known for its strong commitment to sustainability.

Result: Interface's green HRM practices, including employee engagement in waste reduction and energy-saving initiatives, have helped the company achieve its goal of becoming a carbon-neutral enterprise. The company's reputation for sustainability has also attracted environmentally conscious customers.

6. Starbucks

Starbucks has incorporated green HRM practices to encourage sustainability among its workforces.

Result: Starbucks' initiatives, such as promoting reusable cups and incorporating energy-efficient designs in stores, have contributed to reduced waste and energy consumption. These practices align with the company's broader commitment to sustainability.

7. SAP

SAP, a software company, integrates green HRM practices as part of its sustainability efforts.

Result: SAP's focus on telecommuting and virtual collaboration has led to reduced office space requirements and lowered carbon emissions from commuting, demonstrating how green HRM can contribute to environmental goals while enhancing work-life balance for employees.

8. Adobe

Adobe has incorporated green HRM practices such as promoting remote work and reducing paper usage.

Result: By encouraging telecommuting and implementing digital document management, Adobe has reduced its carbon footprint and operational costs while enhancing employee flexibility and satisfaction.

9. Walmart

Walmart, a retail giant, has worked on various green HRM initiatives, including sustainability training for employees.

Result: Walmart's efforts have led to reduced energy consumption, improved waste management, and better supply chain sustainability. Their employees have also reported increased pride in the company's environmental commitments.

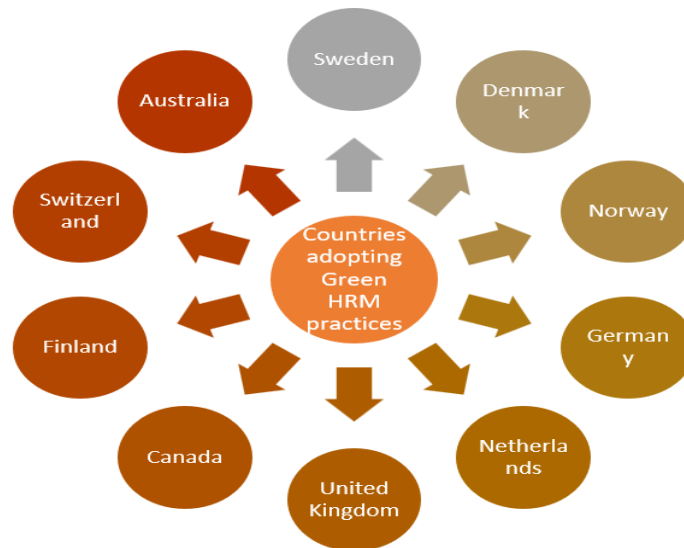
10. Sony

Sony has integrated green HRM practices into its operations, focusing on energy-efficient facilities and sustainable employee behavior.

Result: By implementing energy-saving technologies and promoting eco-friendly practices among employees, Sony has reduced energy consumption and contributed to its overall environmental targets.

9. COUNTRIES ADOPTING GREEN HRM PRACTICES

Several countries have been at the forefront of implementing green HRM practices, integrating sustainability into their workplaces, and promoting environmentally friendly initiatives. Here are a few examples of countries known for their progressive green HRM practices, along with suitable data where available:



1. Sweden

Sweden is often considered a leader in sustainability and green HRM practices. Example: Companies like IKEA, headquartered in Sweden, have implemented eco-friendly HR practices, such as offering sustainable transportation options, promoting circular economy principles, and using renewable energy in their operations.

2. Denmark

Denmark has a strong focus on work-life balance and environmental sustainability. Example: Danish companies like Novo Nordisk emphasize employee wellness and green practices. Novo Nordisk's headquarters is powered by renewable energy sources, and the company supports employee well-being programs.

3. Norway

Norway is committed to eco-friendly practices and sustainable development. Example: The Norwegian government encourages green HRM practices by offering incentives for electric vehicles and supporting initiatives to reduce carbon emissions. Companies like Equinor emphasize environmental and social responsibility in their HR policies.

4. Germany

Germany is known for its robust sustainability initiatives, including in the HRM domain. Example: German companies such as Siemens and BASF have implemented energy-efficient workplace designs, green supply chain practices, and employee engagement programs in sustainability.

5. Netherlands

The Netherlands is dedicated to environmental protection and sustainable business practices. Example: Unilever, a Dutch-British company, focuses on sustainability in its HRM practices, including training employees in green initiatives, reducing waste, and sourcing sustainable materials.

6. United Kingdom

The UK places significant emphasis on corporate social responsibility and green initiatives. Example: Companies like Marks & Spencer have implemented sustainable HRM practices, such as training employees in sustainability, promoting ethical sourcing, and minimizing waste in operations.

7. Canada

Canada is actively working to integrate green practices into HR strategies. Example: Canadian companies like TD Bank have green HRM initiatives, such as promoting green commuting options and implementing energy-efficient technologies in their offices.

8. Finland

Finland places a strong emphasis on sustainability and work-life balance.

Example: Companies like Neste, a Finnish renewable energy company, focus on employee well-being, flexible work arrangements, and environmental education for employees.

9. Switzerland

Switzerland is dedicated to sustainable development and corporate responsibility. Example: Swiss companies like Nestlé emphasize sustainable sourcing, waste reduction, and employee engagement in green initiatives.

10. Australia

Australia has been proactive in integrating sustainability into workplaces. Example: Companies like Atlassian, an Australian tech company, promote eco-friendly practices, including carbon offset programs for employee travel.

It's important to note that while these countries are leaders in green HRM practices, many other nations are also making strides in this direction. The adoption of sustainable HR practices is influenced by factors such as government policies, corporate culture, consumer demands, and the availability of renewable resources.

10 "GREEN HRM 2030: ENVISIONING SUSTAINABLE WORKPLACES AND PRACTICES OF THE FUTURE"

Predicting specific practices with certainty a decade into the future is challenging, but we can extrapolate from current trends and potential developments. Here's a speculative glimpse into potential Green HRM practices after a decade:

1. Carbon-Neutral Workplaces

Organizations will strive to achieve carbon-neutral workplaces, leveraging renewable energy sources, energy-efficient technologies, and sustainable building designs.

2. Virtual Reality for Remote Work

Advanced virtual reality technology will enable immersive remote work experiences, reducing the need for physical commuting and office spaces, thereby decreasing carbon emissions.

3. Biodiverse Workplace Designs

Offices will incorporate biophilic design principles with lush indoor gardens, green walls, and natural lighting to enhance employee well-being and air quality.

4. Eco-Learning and Upskilling

Continuous learning platforms will offer eco-focused courses, ensuring that employees are equipped with sustainability skills and knowledge relevant to their roles.

5. Green Supply Chain Collaboration

Organizations will collaborate closely with suppliers to ensure sustainable sourcing practices, leading to reduced environmental impact throughout the value chain.

6. Green Leadership Development

Leadership development programs will emphasize sustainability leadership skills, equipping leaders to drive green initiatives and foster eco-conscious cultures.

7. Stakeholder-Centric Sustainability

Green HRM will engage with a wider range of stakeholders, including local communities, NGOs, and regulatory bodies, to drive holistic sustainability initiatives.

8. Transparency and ESG Reporting

Organizations will maintain high levels of transparency, disclosing their Environmental, Social, and Governance (ESG) efforts to stakeholders, attracting talent and investors.

9. AI-Driven Sustainability Insights

Artificial intelligence will provide data-driven insights into the environmental impact of HRM practices, aiding in decision-making and enhancing sustainability strategies.

10. Green Inclusivity and Diversity

Diversity and inclusion initiatives will incorporate a green lens, fostering an inclusive environment for employees of all backgrounds while promoting sustainable practices.

11. CONCLUSION

In summation, the landscape of Green Human Resource Management (HRM) practices in organizations is both enlightening and complex, encompassing an array of dimensions that interweave environmental consciousness, employee welfare, and strategic foresight. Throughout this exploration, we have traversed the nuanced terrain of Green HRM, from its myriad advantages to potential hurdles and its envisaged trajectory into the future. Green HRM practices, emblematic of a profound shift in organizational philosophy, advocate for a paradigm where ecological concerns converge with business imperatives. These practices traverse the spectrum of HR functions, from recruitment and training to performance evaluation, echoing the organization's commitment to sustainability and ethical stewardship of resources. The adoption of these practices ushers in a host of tangible benefits. Beyond cost efficiencies attained through resource optimization, they cultivate an environment where employees find resonance with organizational values, bolstering engagement and productivity. Moreover, organizations reap the rewards of a fortified reputation as responsible corporate citizens in the eyes of stakeholders.

Nevertheless, this transformative journey is not devoid of challenges. While the benefits are apparent, the path to implementing Green HRM practices can be fraught with obstacles. Financial constraints, employee apprehension, and the intricate task of harmonizing green initiatives with established organizational culture necessitate astute strategies and resolute commitment.

Navigating these complexities calls for a balanced approach. Organizations must become architects of change, embracing employee input, fostering a culture of sustainability, and orchestrating change management strategies. The endeavor requires not only procedural adjustments but a collective shift in mindset and values.

Looking forward, the tapestry of Green HRM practices unfurls into a captivating future. With mounting global environmental consciousness and a collective push for sustainable trajectories, these practices are poised to evolve. Envisioned are integrated strategies that harmonize sustainability with overarching business agendas, innovative technological integrations, and employee well-being initiatives.

Ultimately, the narrative of Green HRM practices etches a profound transformation. It paints a canvas where organizations cease to be detached entities and instead become stakeholders in a global endeavor to balance prosperity with environmental stewardship. By embracing this

transformative journey, organizations are not just altering their course; they are laying the groundwork for a future where business resilience and ecological well-being coexist harmoniously.

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ANALYZING THE CONTRIBUTION OF ENVIRONMENT IN PROMOTION OF ENTREPRENEURSHIP: PERCEPTION OF STUDENTS'

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ABSTRACT

Thinking from an economic perspective, youth entrepreneurs are the future of the economy. Because youth entrepreneurs contribute to the economy by job creating, increasing productivity, utilizing rural resources, and implementing novel innovations. That's why this became necessary to know about the perception of students about the prevailing business environment.

Purpose/Objective- *The main aim of this paper is to analyze the perception of students towards the prevailing business environment for the development of entrepreneurship on the basis of their stream in Rewari District.*

Design/Methodology/Approach- *For collection of data, a structured questionnaire was prepared, and total respondent was 227. For analyzing the perception mean score, standard deviation and chi square test was used. SPSS 16.0 software was used.*

Findings- *It was found by the study that there is significant difference in the attitude of students towards prevailing business environments for the promotion of entrepreneurship.*

Research Limitation- *This research has been done in only one district of Haryana that is Rewari, that's why it can't present the overall attitude of students of Haryana.*

Keywords: *Environment, Entrepreneurship, Financial Assistance.*

1. INTRODUCTION

Entrepreneurship is the process of analyzing the environment, spotting opportunities, creating a plan, and allocating resources to an idea in order to give it the form of an enterprise. It is that process through which an entrepreneur seeks to bring his creativity and vision to life by starting a business. Between entrepreneur and enterprise, entrepreneurship sits in the middle. Entrepreneurship is the umbrella term for all the tasks an entrepreneur must complete to realize his or her ambition. Entrepreneurs must complete a number of tasks to give substance to their ideas, including environment scanning, opportunity and strength identification, establishing a solid business plan, and allocating resources, such as people, physical, and financial resources.

An entrepreneur is someone who has an original concept in their head and who innovates by creating something new that is distinct from what already exists. Entrepreneurs are those who have the aptitude or capacity to take calculated risks in pursuit of their innovations, ideas, and business endeavors. After having a concept, he sets up, manages, and organizes all the materials needed to bring a business into being. An entrepreneur must be a hard worker, self-assured, risk-taker, leader, with the ability to inspire others, energetic and creative, innovative, communicative, and analytical. He makes the best use of resources possible to ensure the success of his plan.

The process of entrepreneurial development focuses on enhancing a person's abilities through various training programmes in preparation for starting their own business or firm. The primary goal of the entrepreneurship development programme (EDP) is to inspire individuals to improve their productivity, expertise, and creativity in a given area and to prepare ready to create jobs for others. With assistance from DGT, NSDA, and NSDC, the Ministry of Skill Development and

Entrepreneurship (MSDE) is now promoting several EDPs for youngsters to aid in their overall development. The MSDE also promotes a variety of institutions and programmes, including PMKK, Udaan, ITI, and numerous more youth development initiatives.

It was once thought that "**Entrepreneurs are born, not made.**" It was believed that only those people whose families had been successful entrepreneurs.

2. REVIEW OF LITERATURE

(Hussain, T et al., 2018) explained that the attitude of technical students was positive for entrepreneurship as a career for starting their own business. There was no significant difference in the gender base of technical education students regarding entrepreneurship whereas the difference between attitude of morning and self-supporting students was significant regarding entrepreneurship.

(Isidore, E. N. M., et al, 2011) found that the Environmental factors were more positively affected the women Entrepreneurial attitude towards Entrepreneurship rather than Individual factor like (Education, Working Experience, and Risk-taking capacity)

(Olawale F., et al., 2011) revealed that the high school students and university students faced some problems like lack of proper financial assistance, lack of proper training skill, lack of proper family support, less market opportunities and risk factors were major challenges for Entrepreneurial Intention.

(Abdul J., et al., 2017) explained that the mean values for attitude towards entrepreneurship was greater than 2.50 i.e. The attitude of commerce graduating students was positive regarding entrepreneurship. In Kerala the University and Colleges encouraged students to startup their own business.

(Shaik K., Dr. et al., 2016) The authors concluded that the desirability for entrepreneurship in MBA students was greater than other students. MBA students had a positive attitude towards entrepreneurship and there was a significant difference between the students of MBA and others regarding the image of an entrepreneur.

(R. Idhenya, et al., 2016) It stated that there was a positive attitude of students regarding entrepreneurship. Due to the promotion of EDP, many students agreed regarding starting their own enterprise. It was also found that gender and attitude regarding entrepreneurship has a significant relationship.

3. RESEARCH METHODOLOGY

Data collected from primary sources are considered as universe Students of university and college of the Rewari District of Haryana. For the collection of samples, colleges are classified on the basis of rural and urban areas and from both areas one college is selected. KLP College is selected for urban areas and Govt. college, Kharkhara is selected for rural areas. There is only one University in Rewari that's why it is taken. Data is collected by the structured questionnaire with greater accuracy, total 300 questionnaires were distributed out of which 227 responses were received. Cronbach's Alpha test is also done for checking the reliability of the questionnaire. Random sampling is used for selecting the sample units. Mean, standard deviation and chi square test are used for this study.

3.1 OBJECTIVES

- Main objective of this study as follow:
- To examine the contribution of the environment in the promotion of entrepreneurship.

4. ANALYSIS OF DATA

4.1 DETAILED INFORMATION ABOUT RESPONDENTS

Statistical breakdown of the 227 students. The data shows that 139 pupils (61.2%) are female, and 88 students (38.8%) are male. It so demonstrates that both student groups are given sufficient consideration. In terms of age, there are 18 students (15.8%) in the 15–18-year age range, 119 (52.4%) in the 18–21-year range, 66 (29.1%) in the 21–23 year range, and 24 (10.6%) in the over 23 year range. The majority of responders do not currently have a spouse. 77 (33.9%) are picked from the arts stream, 85 (37.4%) from the science stream, and 65 (28.6%) from the commerce stream. In the institutions 53 (23.3%) are students at Govt. college Kharkhara, 81 (35.7%) are at IGU Meerpur, and 93 (41%) are at KLP college. According to their family's income, 111 students (48.9%) fall into the Rs. 50,000–1 lakh group, 70 students (30.8%) fall into the Rs. 1–3 lakh group, 30 students (13.2%) fall into the Rs. 3–5 lakh group, 10 students (4.4%) fall into the Rs. 5–10 lakh group, and the remaining 6 students (2.6%) fall into the Rs. more than 10 lakh rupees group.

4.2 INFORMATION ABOUT PERCEPTION OF STUDENTS TOWARD PREVAILING BUSINESS ENVIRONMENT.

This portion deals with analyzing the responses of students towards prevailing business environments. Mean and standard deviation of each statement is calculated and plotted on graph and then chi square test is used for analyzing the responses of respondents.

Table 1: Status of prevailing business environment: Respondents' View

	Mean score	Std. Deviation
Financial assistance is easily accessible to start a business	3.39	1.141
Getting information for starting a business is possible	3.81	.909
Our culture supports starting a business	3.51	1.169
In our area family supports to starting a business	3.59	1.143
It is not easy for women to start a business	3.28	1.261

Source: Primary Survey

In table 1, results of student's responses regarding the prevailing business environment are reported and various dimensions related to the general business environment to start new business which ultimately shows probability of Entrepreneurial Development are taken here. The mean scores of these five parameters of the business environment favor the chances of development of entrepreneurship in the given area as all scores are more than 3. Particularly, students feel that it is easy to get required information related to starting a business followed by family support and their culture respectively. Though the mean score regarding accessibility of funds is 3.39 but it can be considered as satisfaction. But there is an indifferent view of students regarding the ease of starting a business by a woman. Overall, it may be concluded that according to students, present environment is favorable to start a new business.

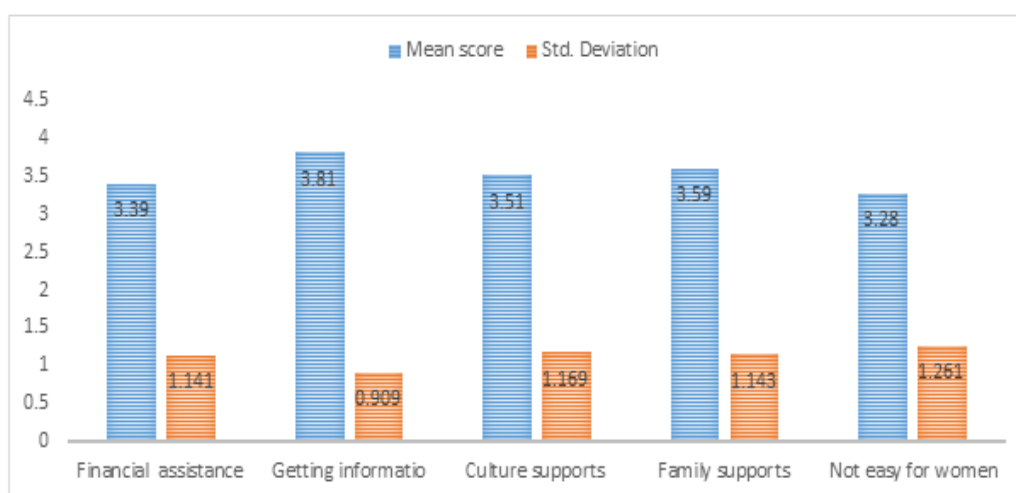


Figure 1: Mean and Std. Deviation of student's attitude towards prevailing Business Environment

H0: 1 There is no significant difference between the attitude of students towards prevailing the Business Environment according to their stream/course.

Table 2: Response of Respondents towards the prevailing Business Environment on the basis of their stream/course: Application of Chi-Square

	Name of course			Chi-square	df	Sig.	Result
	Science	Commerce	Art				
Financial assistance is easily accessible to start a business	85	65	77	12.404	8	.134	NS
Getting information for starting a business is possible	85	65	77	20.581	8	.008	S
Our culture supports starting a business	85	65	77	2.976	8	.936	NS
In our area family supports to starting a business	85	65	77	40.307	8	.001	S
It is not easy for women to start a business	85	65	77	21.830	8	.005	S

Source: Primary Survey

Table 2 shows the results of the chi square test in which the null **hypothesis is partially not accepted**. Students feel that they can get financial assistance easily and have adequate cultural support for starting a business and their significance value is also greater than 0.05, that's why for these dimensions null hypotheses are accepted. On the other hand there is significant difference in the attitude of students regarding prevailing business environment for getting the proper information for starting business (0.008), to get proper family support for starting business (0.001) and difficult task to start a business for women (0.005) and their significance value is also less than 0.05. That's why null hypotheses cannot be accepted. So it can be concluded that there is a significant difference between the attitudes of students towards prevailing the Business Environment according to their stream/course.

5. CONCLUSION

On the basis of the above discussion, it can be concluded that there are some differences in the perception of students according to their stream. It may be that commerce stream students got information easily for starting a business because entrepreneurship subject is a part of their syllabus that's why they are more aware in comparison to other stream students. So there is a strong need to introduce entrepreneurship awareness to every student. It must be a part of syllabus content so that every youth can be aware easily and start their own enterprise with his own effort and Govt. also promote some training programmes so that youth of India can be trained.

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ROLE OF CORPORATE SOCIAL RESPONSIBILITY ATTAINING EDUCATIONAL GOAL OF INDIA

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ABSTRACT

The evolution of Corporate Social Responsibility (CSR) in India has transitioned from voluntary philanthropy to a mandatory business practice through the 2013 Companies Act. This Act requires profitable companies meeting specific financial criteria to allocate 2% of their average net profit to social activities outlined in Schedule VII. CSR initiatives primarily focus on critical societal issues such as health, poverty, gender equality, and education. Education has gained significant attention and funding through CSR efforts, especially in marginalized communities. The government, international organizations, and NGOs collaborate to prioritize education for public good, aiming to bridge the global education gap. India's Companies Act has positioned the country as a global CSR leader, with education being a key eligible activity. This provision benefits the education sector and contributes to a more equitable future through combined efforts of CSR and education initiatives.

Keywords: CSR, Corporate Social Responsibilities, Companies Act, Mandatory, 2% allocation, Schedule VII, Initiatives and Reforms.

1. INTRODUCTION

In India, Corporate Social Responsibility (CSR) has evolved from voluntary philanthropy to a compulsory business practice. The 2013 Companies Act mandated that profitable companies meeting specific financial criteria must allocate 2% of their average net profit to social activities outlined in Schedule VII. Education, along with critical societal issues like health, poverty, and gender equality, has become a primary focus of CSR initiatives. CSR activities under surveillance include eradicating hunger and poverty, promoting education and gender equality, empowering women, reducing child mortality, and improving maternal health, combating HIV and other diseases, ensuring environmental sustainability, providing vocational training, contributing to government funds, and promoting welfare for SC/STs and OBCs. This has made India the only country which has regulated and mandated CSR for some select categories of companies registered under the Act. The CSR policy seeks to harmonize social, economic, educational, environmental, and human development concerns, integrating business goals with societal welfare for sustainable growth. The education sector receives significant attention and funding through CSR, empowering marginalized communities and fostering inclusivity.

Governments and international organizations, recognizing education's importance, prioritize it for public good. Ministries of education and NGOs work together across borders to enhance global education. Influential organizations like UNESCO strive to bridge the gap between developed and developing nations, emphasizing quality education. India's strategic development, RUSA, targets higher education infrastructure, with CSR becoming a pivotal aspect of corporate responsibility. India's Companies Act has positioned the country as a global leader in CSR with education being an eligible activity. This provision significantly benefits the education sector, leading to enhanced funding for educational institutions. The combined effort of CSR and education initiatives exemplifies the potential for a brighter and more equitable future for India and the world. Through collective action and commitment, businesses,

governments, and international organizations contribute to positive change and a prosperous society.

2. OBJECTIVES

1. To Analyze the Status of Corporate Social Responsibility (CSR) in the Education Domain in India
2. Evaluating Top CSR's companies Initiatives and Strategies to promote the Indian education system.

3. RESEARCH METHODOLOGY

This paper is characterized by an analytical approach, grounded in secondary data analysis. Its focus is on Corporate Social Responsibility (CSR) practices, which are explored within a specific context, namely the education sector. The selection of this sector is justified by its substantial concentration of funding from corporate CSR initiatives, making it a priority area. The study aims to shed light on the role and contributions that corporations make within the educational ecosystem.

4. AIM OF THE STUDY

This paper aims to analyze the current state of Corporate Social Responsibility (CSR) in the Indian education sector and patterns in CSR efforts. It also evaluates effective initiatives and strategies by top CSR-contributing companies to enhance the Indian education system. Data is sourced from reputable platforms, enabling insights into corporate impact on education. The study enhances understanding of CSR's role, offering valuable recommendations and lessons for strengthening education in India.

5. REVIEW OF LITERATURE

The idea of Corporate Social Responsibility (CSR) began in the 1930s and 1940s, but it was William J. Brown who first used the term in his 1953 publication "Social Responsibilities of the Businessman." Keith Davis in 1960 described CSR as decisions and actions that go beyond just making money. Goyder in 1961 saw CSR as a collective attitude, where a worker's view depended on social aspects.

Clarence C. Walton's 1967 book "Corporate Social Responsibilities" introduced the idea that companies should have a social obligation. In the 1970s and 1980s, Peter Drucker suggested CSR could help cover operational costs and make profits. Johnson and Carol in 1971 and 1979 discussed the society's expectations from companies. The term CSR gained more significance in the 1990s with German Betapharm and in 2001 when the European Commission explored CSR practices. Academics like Arora & Puranik in 2004 and Jadeja in 1996 provided models and strategies for CSR.

(Dutta and Durgamohan , 2008) explored the corporate social responsibility strategies and initiatives of twenty-six companies of different sectors like metals, chemicals and fertilizers, consumer durables, FMCG services and InfoTech. The findings indicated that out of different corporate social responsibility initiatives education was given top priority followed by health, social causes, rural development and environment. In the global market environment, the social pressures on businesses have increased and the concern for the CSR is not manifested only by academics but by the public and the shareholders as well (Popa, 2010). (Wendy Stubbs, 2011) reported on efforts to develop two stand-alone subjects on sustainability and corporate social responsibility (CSR) in a mainstream business curriculum at Monash University, Australia. This may be a new initiative to strengthen the CSR education initiatives. He found that although many universities offer support for education for sustainability, previous research indicates that most curriculum initiatives in this area have been driven by individual faculty.

(Richa Awasthi & Santosh Jagwani, 2016) analyzed that CSR in education helps fill the skills gap by trying new things and learning as they go. During this process, people, companies, and society as a whole can benefit. They're also the ones who use the skilled workers from colleges. To really benefit, they should support these colleges by giving money for research, organizing workshops, training programs, exchange programs, helping with buildings, and finally, making sure there's good quality education.

(Pooja R. Deshmukh, 2017) stated that in the field of education, there is more competition now, and how we judge schools is changing. Even though the things we look at to judge a college might change, some important things for success in a competitive environment always stay the same. These include having a good reputation and standing out from other schools. One way to do this is by planning and doing things that help society, which is called corporate social responsibility (CSR). Many colleges only teach about social responsibility in terms of doing good things for society, but they should do more. To stay competitive in the changing education world and to do what they say they believe in, colleges need to show their values in their actions. This means they should care about CSR in their everyday operations and in their teaching, like in their courses. This will help the college and also the society in general."

Patel, P, 2020) studied that in India, companies are trying to do good things through CSR and adding them to their business plans. But there are some problems in doing CSR. One reason is that people in local communities don't know much about CSR because there's not much effort to teach them. Another problem is that companies don't always share enough information. If companies, non-governmental organizations (NGOs), communities, and the government work together, India can develop faster and reach the goals for both businesses and the country.

6. STATUS AND SIGNIFICANCE OF CSR IN THE EDUCATION DOMAIN

The inclusion of CSR in the Companies Act 2013 has marked a significant shift for corporations, enabling them to drive positive societal transformations while cultivating stronger stakeholder ties. In this context, the education sector emerges as a prime beneficiary, receiving increased funding for educational institutions. Despite India's diverse developmental landscape, challenges persist. Over 8 crore children lack formal education, forced into labor, and 11.4% of educated students face unemployment. The pressing need for comprehensive education, emphasizing skill development, becomes evident.

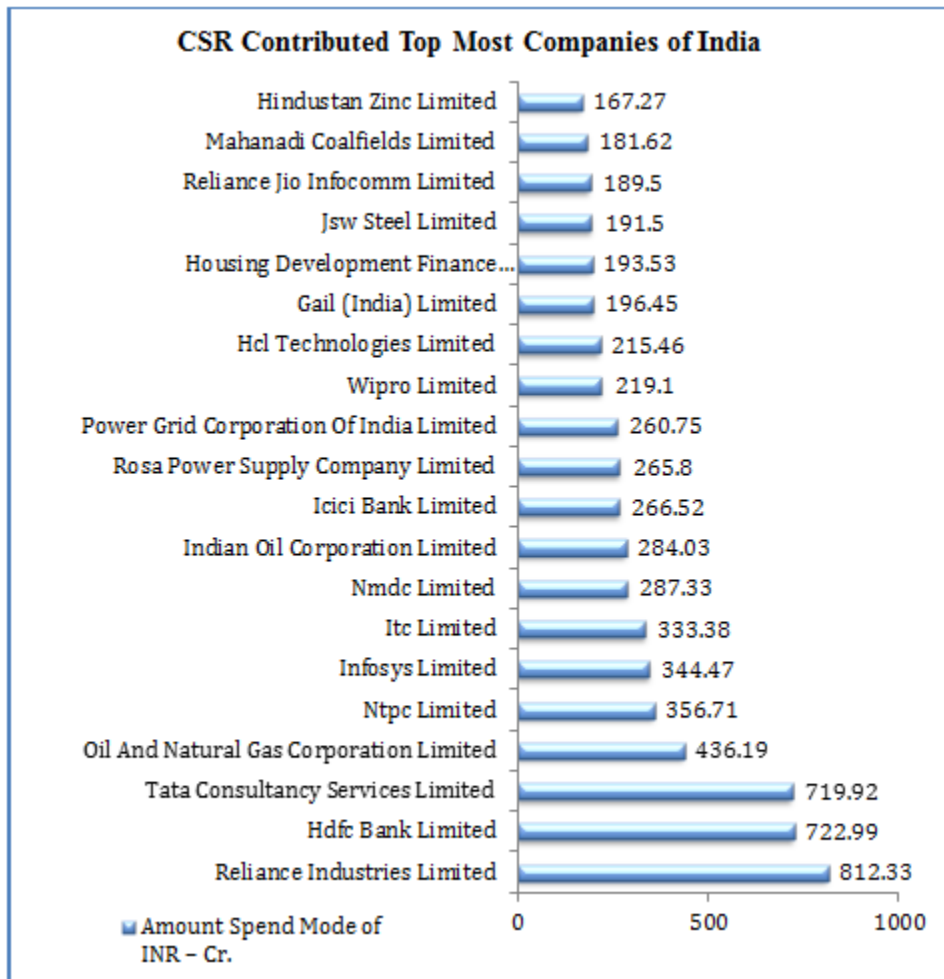
Over the last five years, the education sector has seen substantial funding from both government budgets and corporate CSR initiatives. This combined approach aims to address multifaceted challenges. Inadequate access to quality education and a lack of robust skill development frameworks contribute to these issues. The synergy of public policy and CSR offers hope, paving the way for quality education for all. Collaborative efforts between government and corporations promise transformative change. These initiatives address core problems and enact comprehensive reforms within education, with noteworthy initiatives from both public and private sectors actively working to bridge gaps. Collaborative models involve partnerships with educational institutions, non-profits, and government bodies to enhance access, curriculum quality, and skill acquisition. Technology and innovative teaching methods also play a role, ensuring inclusivity.

Corporate Social Responsibility (CSR) in India has emerged as a pivotal force in driving positive change and societal development. With a staggering 17,007 companies actively participating in CSR initiatives during the financial year 2020-2021, the country has witnessed a significant commitment towards social and environmental progress. These efforts have culminated in a substantial contribution amounting to INR 24,865.46 crores, reflecting the scale and importance of CSR in India's corporate landscape.

CSR CONTRIBUTED TOPMOST COMPANIES OF INDIA 2021-22

CSR Contributed Topmost Companies of India		Amount Spend Mode of INR – Cr.
1	Reliance Industries Limited	812.33
2	HDFC Bank Limited	722.99
3	Tata Consultancy Services Limited	719.92
4	Oil And Natural Gas Corporation Limited	436.19
5	NTPC Limited	356.71
6	Infosys Limited	344.47
7	ITC Limited	333.38
8	NMDC Limited	287.33
9	Indian Oil Corporation Limited	284.03
10	ICICI Bank Limited	266.52
11	Rosa Power Supply Company Limited	265.8
12	Power Grid Corporation Of India Limited	260.75
13	Wipro Limited	219.1
14	HCL Technologies Limited	215.46
15	GAIL (India) Limited	196.45
16	Housing Development Finance Corporation Limited	193.53
17	JSW Steel Limited	191.5
18	Reliance Jio Infocomm Limited	189.5
19	Mahanadi Coalfields Limited	181.62
20	Hindustan Zinc Limited	167.27

CSR in India goes beyond mere philanthropy; it encapsulates a strategic approach by businesses to integrate ethical, social, educational, and environmental considerations into their operations. This multifaceted commitment is demonstrated through a diverse range of 36,865 ongoing CSR projects, each tailored to address unique societal needs and challenges. These projects encompass a wide spectrum of activities, including education, healthcare, poverty alleviation, environmental conservation, women's empowerment, and community development. Through these CSR projects, corporations actively engage with communities, leveraging their resources, expertise, and innovation to foster sustainable development. By emphasizing education, businesses contribute to creating a skilled and literate workforce, enabling individuals to escape the cycle of poverty and illiteracy, while also empowering women through education to foster gender equality and active participation in society.

Graph 1: CSR Contributed Topmost Companies of India (2021-22)

7. TOP CSR'S COMPANIES INITIATIVES AND STRATEGIES TO PROMOTE EDUCATION IN INDIA

Empowering Teachers: Enhancing STEM Learning through Comprehensive Training

The education sector in India has witnessed substantial growth post-independence, with notable progress in various indicators. The addition of the right to education as a Fundamental Right in 2002 (Article 21-A) has further accelerated advancements. Certain achievements have been realized through Corporate Social Responsibility (CSR) efforts:

- **Near-Universal Access:** CSR initiatives have contributed to India's achievement of widespread access to education, benefiting a significant 199 million children.
- **School Infrastructure:** Remarkable progress has been made in school infrastructure, with the country proudly hosting 1.4 million schools. Furthermore, 98% of habitations have the advantage of an upper primary school situated within a convenient three-kilometer distance.

SKF India Launches 'Lab- on – a Bike program to Enhance STEM Education in Bihar

SKF India, a leading technology and solutions provider in bearings and services, has introduced the innovative 'Lab-on-a-Bike' program as part of its WeGyaan STEM learning initiative. Collaborating with the Agastya International Foundation, this program aims to bring STEM education to over 2000 students across 18 government schools in Muzaffarpur and Sitamarhi districts of Bihar. The initiative seeks to make STEM subjects more accessible and ignite

students' interest in pursuing STEM-related careers. Through teacher training, resource provisioning, and community engagement, the program aspires to cultivate critical thinking, decision-making, and problem-solving skills among the students.

Schaeffler India's H.O.P.E Scholarship: Empowering Engineers of Tomorrow

Schaeffler India Limited's impressive initiative, the H.O.P.E Engineering scholarship program, offers valuable financial assistance to economically disadvantaged engineering students. With grants of up to INR 75,000, the program empowers these students to pursue engineering studies and become future leaders. The program is expertly managed by Buddy4Study, a renowned organization in scholarships and education support. This Corporate Social Responsibility (CSR) effort aims to reduce educational inequalities in underprivileged communities and enhance education quality through strategic initiatives.

Sitare Foundation Sponsors 100 Underprivileged Students

Sitare Foundation, a nationwide educational NGO, announced the results of its 2022 entrance exams in July. About 100 students were selected from Jaipur, Jodhpur, Bhopal, and Indore after passing the exams. Most of these students come from low-income families and attend government schools. To join the foundation's program, students undergo a detailed evaluation, including an entrance exam, a two-week educational camp to assess their classroom abilities, and a thorough background check.

PrepLadder Provides Complimentary Guidance to UPSC Hopefuls

PrepLadder, an online education platform, has announced free coaching for successful UPSC CSE Prelims 2022 candidates, aiding them in achieving their goals. The initiative includes an immersive crash course with video lectures, a comprehensive Mains Q Bank, All India Mains Test Series, and model answers for PYQs (2013-20). These resources provide structured learning for Mains preparation, benefiting aspirants across the country.

District Administration Nuh and M3M Foundation Partner for Smart Classrooms in Government Schools

M3M Foundation Joins Forces with District Administration Nuh to Establish Smart Classrooms in 20 Government Schools in Haryana's Nuh District. NITI Aayog is set to provide the smart classroom setup, while M3M Foundation focuses on teacher training and curriculum development. As part of the agreement, M3M Foundation will enhance infrastructure through its 'Saakshar' initiative, supplying furniture, digital tools, and teachers to underserved schools, with a shared goal of enhancing students' academic achievements.

CNH Industrial's Assistance in Education for Disadvantaged Students

CNH Industrial's recent CSR expansion in India focuses on aiding underprivileged students through three initiatives. 'Project Unnati' with Buddy 4 Study supports students from ITIs in Gurgaon and Noida, including mentorship. 'Project Udaan' empowers disadvantaged women with engineering scholarships and a comprehensive curriculum. The ongoing 'Mission Education' has already assisted around 260 students with education, books, and infrastructure, according to CNH Industrial's statement.

Hyundai's 'Mobile Youth Library and Science Lab' Initiative

In August 2022, the Hyundai Motor India Foundation (HMIF) launched 5 'Mobile Youth Library and Science Labs' to provide quality education in rural Uttar Pradesh. These mobile units reached districts like Gazipur, Gonda, Lalitpur, Shamli, and Shahjahanpur, benefiting 16,000 students in 60 schools.

Each unit is equipped with resources like books, experiments, instructors, and librarians. Aimed at students in grades 6th to 9th, the program offers reading sessions and live science experiments. Teachers are trained to continue lessons when the mobile labs are not available,

ensuring the project's sustainability. The initiative also extends learning to community centers in the evenings, helping both children and adults without access to education.

ICICI Academy for Skills,

An initiative by ICICI Foundation focuses on empowering underserved youth with specialized skills for job opportunities. With over 27 centers across 19 states and a union territory, the academy offers a range of vocational training courses to help youth enter the workforce successfully. Training includes technical and office skills, communication, financial literacy, and adapting to professional environments. As of March 2020, the academy has trained more than 145,000 urban youth, benefiting both men and women, with placements facilitated through a job portal and collaborations with over 400 companies.

Unnati for India by Visionet Systems

Initiated by Alok Bansal, MD and Global Head of BFSI Business at Visionet Systems India, this CSR effort began during the pandemic, going against the trend of cutting costs. Its goal is to close skill gaps and boost the employability of young people in a changing job market. This ambitious project aims to train at least 50,000 students in 5 years, getting them ready for jobs in IT and Business Process Management (BPM) fields.

The program is open to both undergraduates and graduates from different academic backgrounds, providing top-notch training. Visionet Systems India helps participants acquire skills that are valuable for successful careers in the digital era.

Project Shakti: Fostering Entrepreneurship and Self-Sufficiency

Hindustan Unilever Limited (HUL) has a special initiative called Project Shakti. This project is all about empowering and helping women in rural parts of India. The goal is to give these women the chance to make money and create their own businesses.

In many states, there are around 136,000 of these women, and we fondly call them 'Shakti Ammas'. Through this program, these women have learned important skills like how to sell things, how to be confident, how to communicate better, and how to think like entrepreneurs.

Tech Mahindra's Holistic Development Initiative: Inclusive Education, Employability & Livelihoods

Tech Mahindra Ltd. is leading a transformative initiative for holistic development in education, employability, and livelihood enhancement. Their commitment to social progress is evident in targeted programs that uplift diverse demographics. Notably, their 2021-22 education initiative prioritizes inclusive education for children, women, the elderly, and those with differing abilities, fostering a fairer educational landscape. Beyond education, Tech Mahindra equips individuals with vital workforce skills through training, mentorship, and career opportunities, recognizing the importance of employment for holistic development. Tech Mahindra's multifaceted project epitomizes a holistic vision for societal betterment, forging paths to a brighter, more inclusive future through collaborative efforts.

8. INFRASTRUCTURE ENHANCEMENT

1. SCHOOL BUILDING RENOVATION

- Identify dilapidated school buildings and classrooms in need of renovation.
- Prioritize safety and conducive learning spaces during renovations.
- Ensure compliance with building codes and accessibility standards.
- Utilize durable and sustainable materials for long-term benefits.

2. LIBRARY DEVELOPMENT

- Construct well-equipped libraries with ample space for reading, studying, and research.
- Curate a diverse collection of educational resources, including books, e-books, journals, and multimedia materials.
- Provide comfortable seating and technology for accessing digital resources.

3. SANITARY FACILITIES IMPROVEMENT

- Install clean water and sanitation facilities, including functional toilets and handwashing stations.
- Implement proper waste disposal systems to maintain hygiene and cleanliness.
- Regular maintenance and cleanliness checks to ensure a healthy learning environment.

DIGITAL LITERACY

1. ACCESS TO TECHNOLOGY

- Provide schools with computers, tablets, and reliable internet connectivity.
- Ensure equitable distribution of devices among students to promote digital inclusivity.

2. TECHNOLOGY TRAINING

- Organize training sessions for teachers and students on effective use of digital tools for learning.
- Emphasize digital etiquette, online safety, and responsible internet use.

TEACHER TRAINING

1. PROFESSIONAL DEVELOPMENT

- Conduct regular workshops, seminars, and training sessions for teachers.
- Focus on pedagogical advancements, classroom management techniques, and subject-specific updates.

2. INNOVATIVE TEACHING METHODS

- Introduce modern teaching strategies, such as project-based learning, flipped classrooms, and interactive simulations.
- Encourage creativity and adaptability in teaching approaches.

SCHOLARSHIP AND SKILL DEVELOPMENT

1. SCHOLARSHIP PROGRAMS

- Identify deserving students, especially from marginalized backgrounds, for academic scholarships.
- Support higher education pursuits and incentivize academic excellence.

2. VOCATIONAL TRAINING

- Offer vocational programs aligned with local job market demands.
- Equip students with practical skills to enhance employability.

3. CAREER COUNSELING

- Provide individualized career guidance to help students choose suitable educational and professional paths.
- Connect students with industry professionals for mentorship.

COMMUNITY ENGAGEMENT

1. STAKEHOLDER COLLABORATION

- Establish regular communication channels between parents, teachers, and community members.
- Foster a cooperative environment that values input from all stakeholders.

2. VOLUNTEER INVOLVEMENT

- Engage local organizations and volunteers to support mentoring, tutoring, and extracurricular activities.
- Enhance students' holistic development through diverse experiences.

AWARENESS CAMPAIGNS

- Launch community-wide campaigns to raise awareness about the significance of education.
- Promote active involvement and support for educational initiatives.

By structuring initiatives in this way, they create a more comprehensive, systematic, and effective plan for enhancing education and fostering holistic student development.

Graph 2: Educational Transformation through Comprehensive CSR



9. CONCLUSION

Renowned visionary Dr. APJ Abdul Kalam underscored the pressing need for a comprehensive transformation of India's education system. Despite decades of well-intentioned government initiatives, a significant number of students remain disengaged, resulting in a 69.1% literacy rate that falls short of desired levels. Moreover, more than 11.4% of educated individuals grapple with unemployment.

The government's extensive efforts have not fully tackled the issue, evident by India ranking third globally in illiteracy according to UNESCO reports. Resource constraints further emphasize the need for external intervention, highlighting the critical role of Corporate Social Responsibility (CSR) in education. Education is undeniably vital for India's future, especially as it aims to become a \$5 trillion economy. Corporate CSR intervention, marked by strategic funding and dedicated efforts, emerges as a key strategy for strengthening the education landscape.

CSR facilitates collaboration between businesses and education, not only addressing immediate challenges but also paving the way for a knowledge-driven future. Corporate support goes beyond financial contributions; it signifies a commitment to nation-building. As India's economy strives for greater heights, integrating CSR into education promises transformation, nurturing talent, and steering the country toward prosperity and enlightenment.

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CIRCULAR ECONOMY/BLUE ECONOMY

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ABSTRACT

“The circular economy is a technique of manufacturing and consumption, that involves distribution, hiring, recycle, repairing, renovates and use again the existing materials and products as long as possible.” In this manner, the life of the material is absolute. The aim of Circular economy is to attain the utmost utilization of the use of limited resources, movement to the renewable resources, and circulate of the products and resources at the last stage of their life, furthermore its purpose to reconstruct all available types resources, including monetary, human being, public, and natural. Basically, a circular economy describes a restored system of economy.

In this way wastage of resources is minimized. When the life of the product is about to end, its substance is reserved for the purpose of recycling the product within the economy. Further value can be created for using those resources again and again effectively. Circular economy is different from the traditional linear economy. The Blue economy or the Ocean economy used to describe the activities related to economy related with the oceans and seas. According to the World Bank, “it defines the blue economy as the conserving ecological balance by using ocean resources to assist in securing the necessities of life and health of the ocean ecosystem.” Blue economy presents India with an amazing opportunity is presented by blue economy to our country to bring together both its country objectives socio- and economic goals as well as stronger association with other country.

Keywords: Circular economy, Blue Economy, Biodiversity, Sustainability

1. INTRODUCTION

“The circular economy is a technique of manufacturing and consumption, that involves distribution, hiring, recycle, repairing, renovates and use again the existing materials and products as long as possible.” In this manner, the life of the material is absolute. In this way wastage of resources is minimized. When the life of the product is about to end, its substance is reserved for the purpose of recycling the product within the economy. Further value can be created for using those resources again and again effectively. A circular economy is different from a traditional linear economy. The purpose of the traditional economy is the take-make-consume-throw away method. That’s why this model depends on a great number of inferior, easy to access materials and energy. A circular economy is a model of economics considered to decrease resources in addition to misuse and discharge production. The aim of Circular economy is to attain the utmost utilization of the use of limited resources, movement to the renewable resources, and circulate of the products and resources at the last stage of their life, furthermore its purpose to reconstruct all available types of resources, including monetary, human being, public, and natural. Basically, a circular economy describes a restored system of economy. Today, the economy of America is not circular but mostly linear. In this economy natural resources are extracted from the earth, those resources are processed, then those used to manufacture goods, then consumed those materials and when that is consumed thrown them into a landfill. Basically, two problems are associated with this, First one is social and the second one is economic. when we talk about social problems. The linear economy demolishes the surrounding, spoils waterways, and releases greenhouse, that make our quality of life inferior.” The second one is the economic side, when you throw some materials

away, then it has the wrong effect on our economy. Many materials and resources, like electricals, fixtures, and foodstuff, are made of precious parts that are misplaced when that is considered as waste. On the other hand, a circular economy keeps those resources inside of the economy. When we stop using those products, they can be disassembled, and their single parts can be used again and again. The purpose of a circular economy is to reduce waste completely by creating products that are long lasting, can be used again, can be repaired, and renovated using resources that can be improved and recycled at the last stage of the product. A model of circular economy preserves natural resources, minimizes the requirement for landfills, and progresses justice of society and environmental issues while generating price and new business prospects. Blue economy causes the incredible impacts on change in climate consist of increasing sea levels, loss or displacement of land, changing current pattern of Ocean and minimize the PH level in the ocean. Oceans are a significant Carbon Sink and assist moderate change in climate.

2. REVIEW OF LITERATURE

(Youssef, 2023): The objective of this paper is to throw light on the introduction of the blue economy, its beginning, overviews the blue economy, its origins, aspect, and its effect on the world economy. Different aspects of the Blue economy are discussed in this chapter such as sea transportation, power, attraction of visitors and biotechnology. The finding of this chapter concludes by calling for greater support and venture in research, improvement to face these obstacles and make sure the sustainability of the blue economy.

(M. Carolina Martins-Rodrigues et al., 2020): the aim of this study is to compare the development of research among sustainability, circular economy and this study was carried out by using various kinds of tools. Understanding about the subject was broadened by using Web of Science and Scopus, from this article concluded that the database was created by comparing the above three terms and result was obtained in the web of science and Scopus.

(Wang, 2023): The aim of this article is to talk about the effect of circular economy on organization and the causes of development of circular economy that is why enterprises develop circular economy foundation on the principles of circular economy. Because of changes in national policies, improvement and advancement, the development of a circular economy is critical for the growth and competitive advantage of the organization.

(Martínez-Vázquez et al., 2021): “The objective of this study is to conduct the study by using various types of tools in the concern of Blue Economy, terms of Blue Economy (BE) Ocean Economy (OE), Marine Economy (ME), and Blue Growth (BG) to examine the systematic manufacturing in this area of study.” The articles put the light on the benefits of various areas of a Blue Economy, the importance of different sectors of BE and the benefits of governments in encouraging it for the growth of the economy of the country for the development of their national economies by using various analysis tools. To conclude this article puts the light for association between areas of blue Growth and the Circular Economy so that sustainability between developed and developing nations can be attained.

(Upadhyay and Mishra, 2020): Blue economy that encourages use of sustainable resources of the ocean for the purpose of development of the economic condition of any nation. Besides, it also helps in conservation of the condition of the ecosystem of the ocean. Now it has become an important element of the ecosystem of comprehensive development of recent infrastructure. Delhi has taken many steps to encourage the activities of the Blue economy and its growth. New Delhi has taken many initiatives to promote blue economy activities and development of modern infrastructure for better connectivity, global association and buy and sell facilitation. In addition to that it is looking for big global companies in the sector of financing, transfer of knowledge, constructing of ability and sharing of knowledge. This article presents the

significance of the blue economy. This paper underlines the importance of the blue economy in a large structure of sustainable growth and examines the direction of foreign policy of India on the way to Blue Economy. To conclude Finally, it also has collaboration between Europe and India, the area of Blue economy.

3. OBJECTIVES OF THE STUDY

Objectives of the study are as follows.

- 1) To find out the impact of the circular economy on Environment.
- 2) To find out the impact of a circular economy on reducing the wastage of resources.
- 3) To find out the impact of the Blue economy on Environment.

4. HOW DOES NIST HELP

The purpose of NIST's is to sustain the economy of the country and our value of life. The circular economy advances these both aspects of any country. That's why Governments of any country, commerce, and client around the world are putting the efforts towards a renewable resource, but before doing the work on circular economy there is a lot of work on differences that need to be considered. NIST is also working with others so that those differences can be filled.

5. IMPORTANCE OF CIRCULAR ECONOMY

1. To safeguard the environment: If we Reuse and recycle the products that will reduce the use of ordinary resources, will slow down surrounding distraction and assist in reduce biodiversity loss of biodiversity. The circular economy is also beneficial in reduction in total annual greenhouse gas emissions.

According to the European Environment Agency, "Contribution of industry in greenhouse emission in the EU is 9.10% while the efficiency of utilizing the waste resources is 3.32%. If we use more efficient and sustainable materials that help to minimize energy and consumption of resource, estimation that during the design phase the impact of product's environment that more than 80%." If we switch to the economy where resources that can be used again, innovate, and renovate will minimize the amount of worthless products. The objective is to undertake excessive packaging and improve designing of products to encourage use again and recycling.

2. Lower the dependency on raw material: The population of the world is increasing and that causes the increase in requirement for raw materials. On the other hand, the availability of crucial raw materials is finite. Restricted delivery also means reliant on some EU nation on some other nation for their demand of crucial raw materials. According to Eurostat "the EU imports about half of the raw materials it consumes. Reprocess of raw materials alleviate the danger related with delivery, Example price instability, availability and dependency on import." It is applicable particularly to restricted raw materials, that is required for the manufacturing of machinery that are important for achieving the environmental objectives, examples batteries and electric engines.
3. Jobs creation and conserving consumers money: Switching on the way to a circular economy could enhance. Various innovations among different areas of the economy could be enhanced through circular use by restoring products and services. Restoring materials and resources for circular use would also enhance improvement across diverse areas of the economy. More durable and innovative products will be provided to the consumers that will enhance the worth of life and also preserve the money for them in the long term

6. PRINCIPLES OF CIRCULAR ECONOMY

Three principles are the core concept of circular economy

1. Reduction of useless material and greenhouse gases: The concept recommends the decreasing of waste and greenhouse gases by diminishing harm from economic activities.
2. Life cycle of manufactured goods and resources is increased: The purpose of a circular economy is to increase the useful life of the manufactured goods and resources by generating the round of the manufactured goods and resources flowing in the economy. This purpose is attained through the use again, put back together, and manufacturing of the goods and resources used in the economy.
3. Renewal of ordinary structure: The renewal of ordinary structure is one of the fundamental thoughts of a circular economy. It increases ordinary capital and generates the essential conditions for the renewal of ordinary structure.

7. TECHNOLOGICAL CYCLES VS. BIOLOGICAL CYCLES

The significant differentiation between technological and biological cycles is involved in a circular economy:

1. **Technological Cycles:** Technological cycles means utilization of limited resources in an effective and efficient manner. These finite materials are attained and employ them in many cycles of economics. This management of resources is attained through use again, restore, and reproduction of the products and materials.
2. **Biological Cycles:** Biological cycles involve the effective and efficient utilization of renewable resources. Materials that are based on biologically are proposed to bring back into the ordinary systems and consequently reinforce to offer renewable resources. In a circular economy, utilization takes place only in the cycle of the organic.

8. CIRCULAR ECONOMY VS LINEAR ECONOMY

Both these economies are the opposite of each other. Difference between these two economies is given below.

1. A traditional economy is not circular; but it is linear. A linear economy system generally performs the obtained of raw materials and leads to the end output and usage of the product to optimum levels followed by breakdown of the item after full consumption. On the other hand, a circular economy focuses on utilization of the already decomposed item and reuse of the product to produce a new product or material or renovate the existing item with the intention of additional usage.
2. A linear economy is not a closed loop, comparatively the circular economy is a closed loop. That is the case because the traditional economy does not utilize the resources properly and does not consider the significance of all elements used in production. In contrast, the closed economy believes in each aspect and elements engaged in the production cycle.

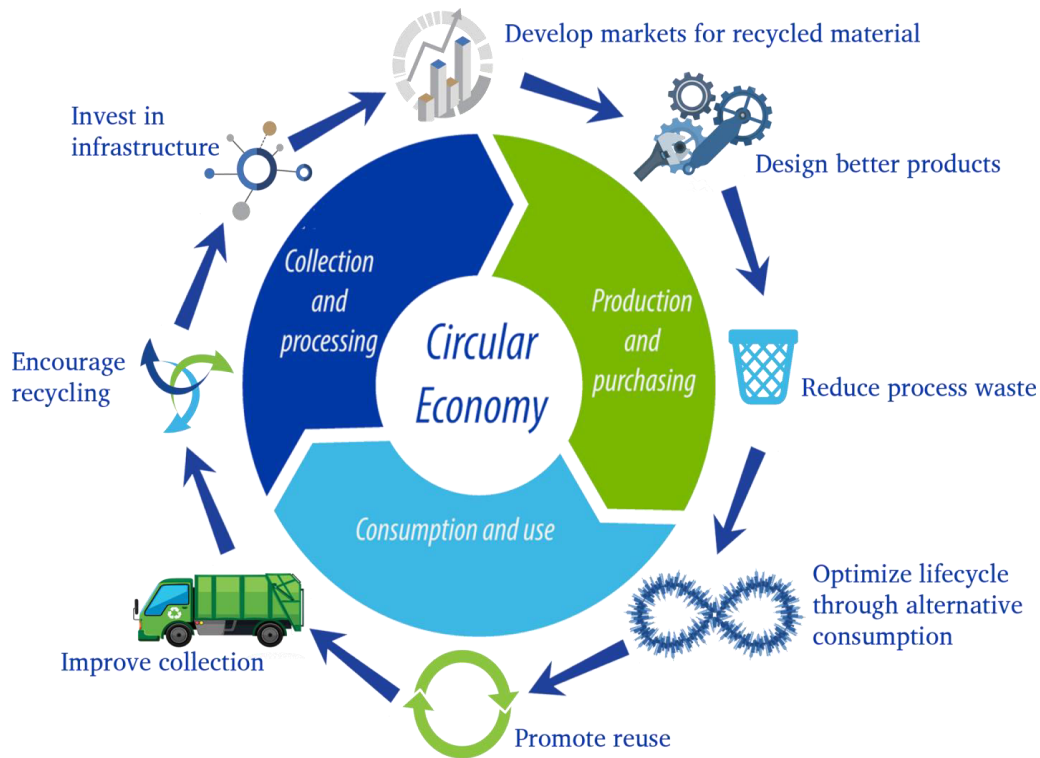


Image: Sustainable Global Resources Ltd.
Recycling Council of Ontario

Fig1: Circular Economy

9. BLUE ECONOMY

The Blue economy or the Ocean economy used to describe the activities related to economy related with the oceans and seas. According to the World Bank, “It defines the blue economy as the ability to be maintained at a certain level, employ of ocean resources to assist economies, source of income and health of the ocean ecosystem”.

This concept aims for the improvement of well-being of society and human equity, whilst lower risk of environment and environmental abundance of the ocean.

A critical problems that blue economy is facing challenge of the blue economy is to recognize and effective utilization of many area of sustainability of sea, that help In preventing the pollution from sustainable fisheries to health of ecosystem. New Delhi has taken many initiatives to promote blue economy activities and development of modern infrastructure for better connectivity, global association and buy and sell facilitation. In addition to that it is looking for big global companies in the sector of financing, transfer of knowledge, constructing of ability and sharing of knowledge.

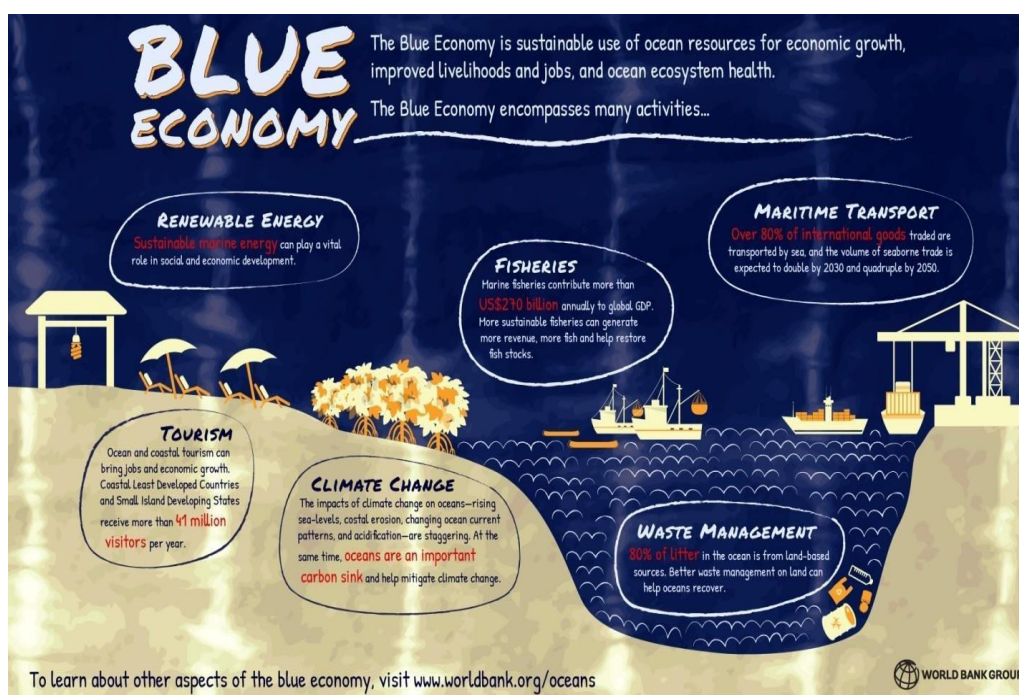


Fig 2: Blue Economy

9.1 HISTORY OF BLUE ECONOMY

Professor Gunter Pauli was the first one who introduced the economic philosophy of the Blue Economy in 1994 at the United Nations University (UNU). The model of blue economy became important since the Third Earth Summit Conference – Rio+20 in 2012. This viewpoint strengthens the aim following the Commonwealth Blue Charter, emphasize the close relation among the sea, changing weather, and the welfare of the community.

9.2 SIGNIFICANT ACTIVITIES RELATED TO A BLUE ECONOMY

The following activities are covered by The Blue Economy:

1. **Alternative Energy:** Important role is played by sustainable Marine Energy in growth in economic condition and society.
2. **An activity leading to the harvest of fish:** Marine Fisheries play a very significant role in GDP. The part played by harvesting of fish in global GDP is more than US\$ 270 annually. More revenue is generated by sustainable Fisheries, and it helps restore fish stocks.
3. **Water Transport:** Traded goods transported by Sea is more than 80% and the transported and travelled by the sea rate is likely to double by 2030 and quadruple by 2050.
4. **The Tourism industry:** Ocean and Coastal Tourism industry play an important role to bring jobs and economic growth. The visit of Least Developed Coastal countries and small island developing countries is done by more than 41 million visitors.
5. **Changing the climate:** The incredible impacts on climate change consist of increasing sea levels, loss or displacement of land, changing the current pattern of Ocean and minimizing the PH level in the ocean. Oceans are a significant Carbon Sink and assist moderate change in climate.
6. **Management of Unwanted and unusable things:** Land-based sources are the causes of 80% waste in oceans. Improved Waste Management systems can assist reinforce weakening health of ocean.



Fig 3: Relationship between Blue Economy and Circular Economy

A significant phase that is concerned with an important aspect relates to the disagreement between economic growth planned by both BG and. Therefore the CE treats itself as an intermediary among progress, growth in economic and service while extending through availability of resources and minimizing the pressure of societal and environmental.

9.3 FACTORS AFFECTING BLUE ECONOMY

1. **Risk of Transported and Travelling by Sea Horror:** Piracy and carrying weapons burglary, ocean violence, illegal buy and sell in crude oil, weapons, drug and trafficking of human and smuggled goods etc.
2. **Natural Calamity:** Tsunamis, tropical storm, storm, and typhoons occur every year etc leave maximum of persons trapped and value of material goods damaged.
3. **Artificial Problems:** Oil leak, changing the climate going on danger the balance of the sea area.
4. **Effect of Changing the Weather:** Changing in warmth of sea, acidity, warns sea life, habitation, and the society that are dependent on them.
5. **Sea Contamination:** In form of surplus nutrients from unprocessed sewerage, farming overflow, and sea garbage example- plastic
6. **Excess Use of Sea Resources:** Sea resources are extracted through unlawful and unregulated activities.

9.4 IMPORTANCE OF THE BLUE ECONOMY

1. High Rate of Return on Investment
2. Synergy With SDG
3. Sustainable Energy

9.5 REASONS OF IMPORTANCE OF BLUE ECONOMY FOR INDIA

1. Blue economy presents nation with an amazing prospect is presented by Blue economy to our country to bring together both its nation objectives socio- and economic objectives as well as stronger association with other countries.

2. Blue economy assists in focusing on sources of revenue creation, attaining security of energy, constructing ecological elasticity, and progressing the physical condition and standards of living of coastal society.
3. The efforts of the Indian government is supported and strengthened to attain the SDG's food shortage and poor quality abolition along with ability to maintained at a certain level use of sea materials by 2030.
4. Major means of trade of global oil happening through the Indian sea. So, it is a major means of trade as much as 80%.
5. Superior connectivity in the region that will lower the cost of transportation and useless resources of the sea makes the buy and sell of goods through marine sustainable and cost efficient.

9.6 MEASURES ADOPTED TO SUPPORT BLUE ECONOMY

Following are the measures that are adopted to support the Blue economy.

1. **Deep Ocean Mission:** The purpose of this mission was initiated to extend expertise to connect both survival and non-survival material from the deep ocean.
2. **“India-Norway Task Force on Blue Economy for Sustainable Development.”** : Dual purpose was commenced together mutually the nations in 2020 to build up and summarize between the two nations.
3. **Sagarmala Project:** This project is the planned scheme for economic and social improvement with the widespread use of services related to IT related services for transformation of seaport.
4. **O-SMART:** A scheme of umbrella in India having the name of O-SMART that purpose a at synchronization of sea, sea resources for the growth of sustainability.
5. **Incorporated Management of Coastal Zone:** The focus of the blue economy is on preservation of resources of sea and coastal, and improving source of revenue prospect for communities of coastal etc.
6. **General Policy Related to Fish:** Fisheries policy of our country is to promote the initiative of Blue Growth that stresses on being able to maintain a certain level, uses the prosperity of fish from sea and other means of sea.

10.CONCLUSION

The life of the material is absolute. In this way wastage of resources is minimized. When the life of the product is about to end, its substance is reserved for the purpose of recycling the product within the economy. Further value can be created for using those resources again and again effectively. With the help of a circular economy, we can safeguard the environment and control the dependency on the crucial raw material. Today, the economy of America is not circular but mostly linear. In this economy natural resources are extracted from the earth, those resources are processed, then those used to manufacture goods, then consumed those materials and when that is consumed thrown them into a landfill. Basically, two problems are associated with this, the first one is social and the second one is economic. when we talk about social problems. The linear economy demolishes the surrounding, spoils waterways, and releases greenhouse gases that make our quality of life inferior.” The second one is the economic side, when you throw some materials away, then it has the wrong effect on our economy. The Blue economy or the Ocean economy used to describe the activities related to economy related with the oceans and seas. This concept aims for the improvement of well-being of society and human equity, whilst lower risk of environment and environmental abundance of the ocean. Superior connectivity in

the region that will lower the cost of transportation and useless resources of the sea makes the buy and sell of goods through marine sustainable and cost efficient. Fisheries policy of our country is to promote the initiative of Blue Growth that stresses on being able to maintain a certain level, uses of prosperity of fish from sea and other means of sea. Blue economy presents nation with an amazing prospect is presented by Blue economy to our country to bring together its nation objectives socio- and economic objectives as well as stronger association with other countries.

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THE IMPORTANCE OF EMPLOYEE RETENTION: BUILDING THE FOUNDATION FOR SUSTAINABLE BUSINESSES

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ABSTRACT

In today's intensely competitive and dynamic corporate environment, employee retention is a crucial component of creating economically viable businesses. The importance of encouraging a strong employee retention strategy and its consequences for long-term corporate performance are examined in this chapter. This study explores the many advantages of cultivating a stable and dedicated workforce with an emphasis on the linked relationship between employee retention and organizational sustainability. The chapter starts out by examining the current difficulties that firms encounter in keeping hold of talented individuals in a climate that is rapidly changing. It looks into the negative effects of high staff turnover, including higher hiring expenses, knowledge loss, weakened teamwork, and decreased production. The report also emphasizes the effect of staff retention on an organization's standing and potential for future talent recruitment. This study attempts to provide a thorough knowledge of the significance of staff retention in laying the groundwork for sustainable enterprises by synthesizing the findings from numerous sources. It concludes with a collection of doable suggestions and tactics that businesses may use to strengthen their efforts to retain employees and cultivate a staff that will support them in achieving long-term success and adaptability in a constantly shifting business environment.

Keywords: Employee Retention, Sustainability, Recruitment, Employee turnover.

1. INTRODUCTION

Organizations are constantly looking for ways to develop and strengthen their position in the market in the dynamic world of modern business, where innovation and competition are the driving forces. One success pillar endures amidst all of these endeavors: the employees retention. Employee retention goes beyond its role as a simple human resources statistic because it is the cornerstone upon which sustainable organizations are built. It develops into a strategic imperative that promotes an enterprise's expansion and prosperity in addition to ensuring its survival. This discussion dives into the critical role that employee retention plays as the foundation of long-term success for companies, examining how developing a devoted and loyal workforce can boost output, cut costs, and foster a healthy workplace culture. Businesses may unleash the potential for long-term success and establish themselves as sector leaders in an ever-changing corporate landscape by comprehending the multiple effects of staff retention.

2. EMPLOYEE RETENTION

One vital thread shines out as being of utmost importance in the complex tapestry of contemporary business operations: Employee retention. Companies are negotiating a competitive landscape where talent acquisition and development have taken centre stage in an era marked by quick technical developments and seismic industry shifts. In light of this, the idea of staff retention has gained ground and become more important than it formerly was as a tactical need. Employee retention is fundamentally the art and science of creating a culture where valued team members opt to stay dedicated and engaged over the long haul. In addition to supporting organizational stability, this fundamental pillar also encourages innovation, upholds institutional knowledge, and fosters a strong corporate culture. This study on employee retention

tries to clarify its significance, analyze its primary drivers, and highlight the significant effects it has on output, employee morale, and overall business success. As we set out on our adventure, we will learn how encouraging employee loyalty and happiness may spark success, allowing firms to flourish in the face of ever-changing circumstances. The term "retention" refers to a methodical attempt to develop and enhance an environment that keeps motivating workers to work while putting in place policies and procedures that meet their various needs. The practice of keeping employees on board or enticing them to stick around for as long as feasible is known as employee retention. "A method by which businesses maintain an effective workforce and meet operational requirements.

3. SUSTAINABILITY

By meeting mankind's present needs without compromising or harming their future needs (Baumgartner & Rauter, 2017; WCED, 1987), sustainability is thought to be a crucial component that can generate a long-term competitive advantage, which is reflected by an increase in both business and financial performance (Cachon-Rodriguez et al., 2021). Creating sustainability strategies and employee engagement as a crucial component that enables people to develop capacities so that no one is left behind are currently among the issues encountered by human resource management (PwC and WEF, 2021). According to the consulting firm (KPMG, 2021), the difficulties in managing labor relations to bring in and keep talent are centered on encouraging and increasing employee relations engagement and sustainably managing the organization and teams. In response to this issue, many human resource (HR) managers are moving away from the conventional short-term knowledge, skills, and experience-based human capital management framework and toward increased knowledge management backed by long-term relationship systems (Hite & McDonald, 2020).

The Strategic Significance of Employee Retention

Employee retention is no longer just a tactical issue for firms; it is now a strategic one. A committed and competent workforce is a significant resource that can give organizations a competitive advantage, according to research by (Huselid, 1995) and (Pfeffer, 1998). Employee retention is said to have a good effect on innovation, customer satisfaction, and organizational effectiveness (Huselid, 1995; Guthrie, 2001).

4. OBJECTIVES OF THE STUDY

- 1. Understanding the Significance of Employee Retention in an organization setup:** The main goal of this chapter is to give a thorough knowledge of why maintaining staff morale is essential for creating sustainable organizations. Investigating the long-term financial, operational, and cultural effects of keeping talented employees is a component to this.
- 2. Explore Key Drivers of Employee Retention:** Another objective of this chapter is to examine the many aspects of employee retention. Readers will learn about the complex process of keeping employees in a competitive business environment by looking at factors like pay and benefits, work-life balance, possibilities for professional progress, and a pleasant workplace culture.
- 3. Develop Strategies for Building Employee Retention:** This objective focuses on outlining a variety of practical tactics that businesses can apply to raise employee retention rates, building on our understanding of retention variables. These tactics might include developing a supportive work atmosphere, mentorship programmes, recognition and incentive systems, and individual career development plans.

5. LITERATURE REVIEW

An essential component of an organization's success and sustainability is employee retention. It includes tactics and methods targeted at retaining valuable workers for protracted periods of

time. Scholars, practitioners, and business executives have all paid close attention to the relationship between employee retention and corporate sustainability.

A number of studies emphasize the crucial part that employee retention plays in creating long-lasting companies. Increased training and recruitment expenses, workflow disruptions, and the loss of institutional expertise are all consequences of high turnover rates. This disruption may make it more difficult for the company to adjust to shifting market dynamics, which may have an adverse effect on the company's long-term viability (Cascio, 2003; Allen et al., 2015).

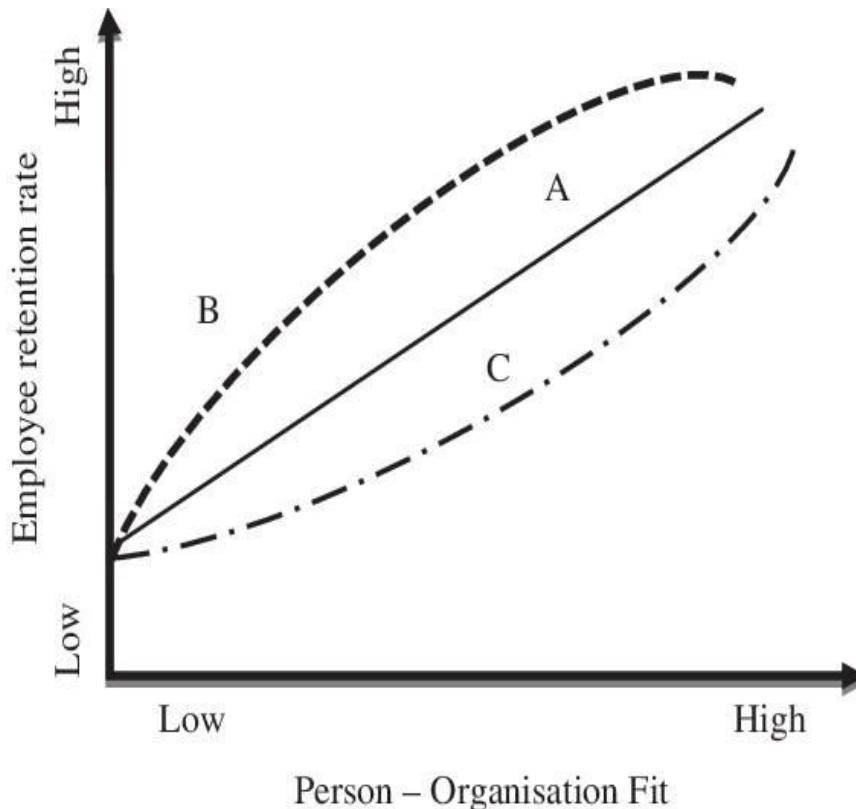
According to research, employee retention and total organizational productivity are positively correlated. Retaining employees helps them have a deeper understanding of how the business operates, which boosts productivity and product quality.

Employees that are devoted and engaged are also more motivated to contribute to the success of the company, which leads to improved performance (Guthrie, 2001; Wang & Shyu, 2008). Employee retention frequently costs less than ongoing hiring and onboarding. Successfully retaining their workers allows businesses to avoid significant costs like recruitment, training, and missed output from new hires' adjustment. Additionally, a stable workforce can promote a positive reputation, making the business more appealing to potential clients, consumers, and investors (Lee & Bruvold, 2003; Huselid, 1995). Retaining employees helps to foster a supportive organizational culture. Employees are more likely to be interested, fulfilled, and invested in their roles when they feel valued and supported. According to (Eisenberger et al., 2001) and (Saks, 2006), this sense of belonging can raise job satisfaction, decrease intentions to leave the company, and boost employee morale. Due to the time and resources needed to find, hire, train, and onboard new staff, high employee turnover can cause productivity losses. Studies by (Hom & Griffeth, 1995) and (O'Reilly et al., 1991), which show a negative link between turnover rates and financial performance metrics, reaffirm this idea. Employer retention is prioritized by businesses, which often see increased operational effectiveness and financial stability. Retaining employees is essential for maintaining institutional knowledge and promoting innovation. Over time, employees that stick with a company gain expertise and insights about the business. For fostering innovation and keeping a competitive edge, this knowledge is crucial. Studies by (Collins and Clark, 2003) and (Capelli and Singh, 1992) as well as others emphasize the significance of keeping experienced staff around as they serve as catalysts for innovation and information sharing. Effective strategies for retention must take into account the variables that affect employee retention. Critical factors of employee retention include things like job satisfaction (Locke, 1976), work-life balance (Greenhaus and Allen, 2011), career development possibilities (Arthur, 1994), and supportive leadership (Eisenberger et al., 1986). Employee retention is greatly influenced by organizational culture and leadership. Higher levels of staff engagement and commitment have been associated with transformational leadership, which is characterized by inspiration and mentoring (Bass and Riggio, 2006). Job satisfaction is increased and turnover intentions are decreased by an effective organizational culture that values communication, trust, and employee appreciation (Cameron and Quinn, 2006; Schein, 1990).

6. STRATEGIC FIT AND EMPLOYEE RETENTION

Skinner introduced the concept of Strategic fit in 1969. He said that businesses should modify their production methods to carry out the duties that were essential to their success and in line with their company strategy. According to a number of experts, business strategy and HRM practices must be consistent in order for a company to be successful (Buffa, 1984; Fine and Hax, 1985; Kotha and Orne, 1989; Miller and Roth, 1994; Wheelwright, 1984). Author has contended that strengthening the alignment between organizational principles and employee values can increase the efficacy of HRM methods in addressing employee retention. Person-organization (PO) fit refers to the compatibility between an individual and the organization that

employs them, which happens when the traits of the two entities are well matched. Increased organizational commitment, job satisfaction, job retention, organizational citizenship behaviors, and job performance are all associated with it (Subramanian, S et.al., 2022). Higher levels of PO fit have been linked to better task performance, organizational citizenship behaviors, employee retention, work satisfaction, and organizational commitment (Das 2022; Hofman and Woehr 2006; Kristof-Brown et al. 2005; Verquer et al. 2003).



Source: Alfred Presbitero, 2015

Green HRM and Employee Retention

People are a big source of competitive advantage, which is why organizations use a variety of policies and practices to keep their skilled employees for a long time. As a result, along with cutting wasteful spending and raising employee enthusiasm and capabilities, employee retention has become one of the main factors for organizational success. Past studies posit that it can be quite difficult to keep personnel on board, because of shifting demand and frequent job switching by many staff members.

Sustainability and Employee Retention

Maximizing a business operation's good effects for all stakeholders is one of its key precepts, and it should start with its internal human resources. Effective human capital is increasingly recognized as being essential to an organization's success, and the human resource operations must be strategically viable. For the majority of HR professionals, the term "sustainability" is novel and fascinating, but the connection between sustainability and human resources is elusive (Ghani, B et.al., 2022).

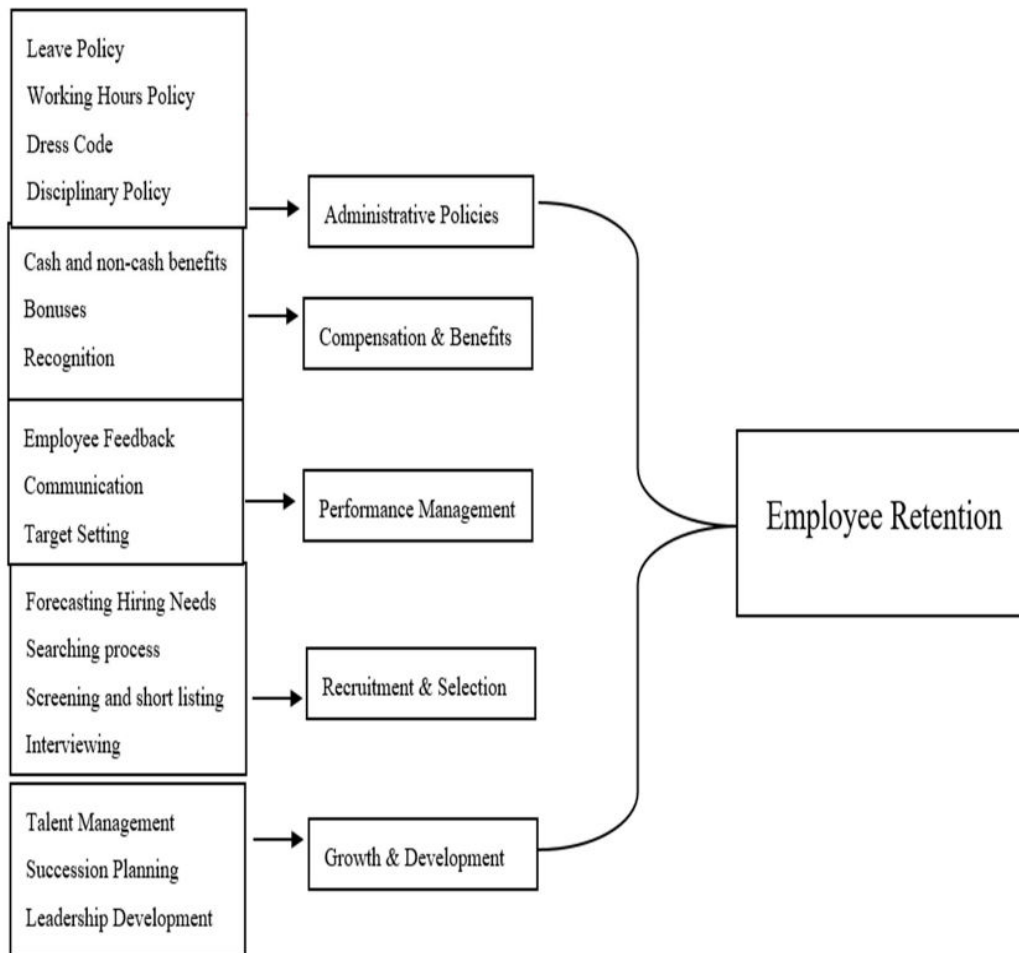
7. DRIVERS OF EMPLOYEE RETENTION AND EMPLOYEE TURNOVER

The advantages of sustainability-driven employee retention are numerous and have the potential to start a loop of advantageous results that benefit both the company and its employees. Here are several major advantages:

1. **Enhanced Employee Engagement and Commitment:** Sustainability programs can align with the values and feelings of the workforce. Employee engagement and loyalty to the company typically rise when they believe their work has a positive impact on society and the environment. Employees who are engaged are more likely to stick with the organization, put up extra effort, and help increase production.
2. **Talent Attraction and Retention:** It might be difficult to draw in and keep top talent in today's cutthroat labor market. An organization stands out when it has a sustainability-focused culture, attracting those who care about the environment. Employees are more inclined to stick with a company that shares their values and offers fulfilling employment possibilities.
3. **Enhanced Employee Well-Being:** Initiatives that support employee wellbeing, such as stress-reduction programs, flexible work schedules, and wellness programs, can be included in sustainable business practices. Employees are more likely to stay loyal to the company if they feel supported and that the corporation prioritizes their well-being.
4. **Innovation and Creativity:** Innovative solutions are needed to address sustainability concerns. Encouragement of staff members to offer suggestions and solutions for sustainability-related problems promotes an innovative and creative culture. Employee retention is higher when they feel empowered to innovate for the company.
5. **Long-Term Organizational Resilience:** Sustainability frequently entails planning forward and fostering resistance to upcoming difficulties. Businesses that place a high priority on sustainability are better able to handle changes in the commercial environment, increasing their chances of long-term survival and success. This long-term perspective can help staff members find steady work options.
6. **Reduced Turnover Costs:** Recruitment, training, and lost productivity can be expensive when there is a high staff turnover rate. Organizations can lower turnover rates and the costs associated with them by fostering sustainability-driven staff retention.
7. **Opportunities for Professional Development:** Many sustainability projects entail training, skill development, and exposure to cutting-edge procedures. Employers who support the professional development of their staff members are more likely to keep them on board. Employees value the opportunity to pick up new knowledge and abilities that will advance their careers.
8. **INTERVENTIONS THAT CAN HELP TO IMPROVE SUSTAINABLE ORGANIZATIONAL ENVIRONMENT**
 1. **Sustainable and Positive Work Environment-** A key element in determining how satisfied employees are at work is the culture and organizational environment. It has an effect on how employees view the company. Employees are encouraged and motivated to perform better in a supportive and environmentally friendly work environment, and this behavior is maintained throughout the day. According to researchers, factors such as the working environment, workplace culture, and working circumstances influence whether or not individuals quit a business. Low levels of satisfaction and inadequate leadership are the causes of the low staff retention rate in the hospitality sector.
 2. **Sustainable Growth Opportunities-** Opportunities for employees to improve professionally and personally as well as financially are referred to as sustainable growth opportunities. Career growth or development is a formal approach that businesses and organizations use to assess the availability of workers who are qualified and meet all employment requirements. It is the process of giving employees access to an ongoing mechanism that improves their

knowledge and skill levels. Opportunities for professional development and progress are essential to the success of any organization.

- 3. Sustainable and Effective Communication-** A sustainable communication plan enables firms to efficiently enhance interpersonal, group, departmental, and multicultural communication, which helps them create and maintain a positive workplace culture. It is crucial in fostering an atmosphere of open communication and giving workers more chances to voice their ideas for the organization's long-term success. Developing a strong relationship between employees and their supervisors is the best approach to communicate in the workplace. Employers may retain their staff by implementing successful communication strategies such as minimizing the power distance, giving regular feedback, holding performance management meetings, running efficient orientation programs, and promoting teamwork.
- 4. Sustainable Recruitment and Selection Process-** An organization's hiring and selection procedures determine an employee's conduct and attitude, as well as whether or not those characteristics are consistent with the company's internal culture. It also identifies potential candidates who would be a good fit for the organization. An effective recruitment strategy draws qualified applicants who are most compatible with the job position and organizational culture. Organizations can choose the best candidate to fill a vacancy for a longer length of time when they employ the finest sustainable recruitment and selection processes, such as person-job fit and person-environment fit. Competent and well-suited staff bring novel approaches and distinct methods for carrying out various tasks; they raise the level of efficiency of the workforce and further stimulate a positive and healthy competition to sustain and excel in the market.



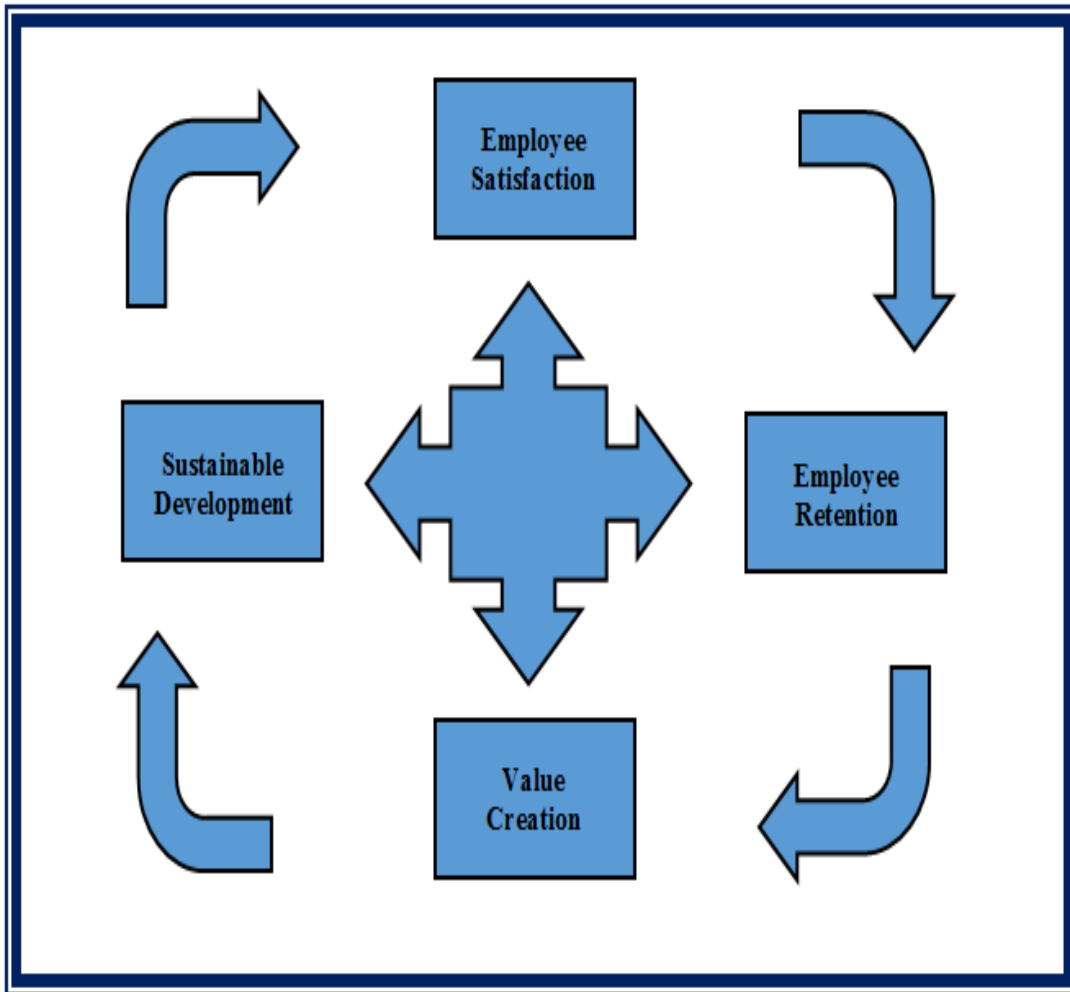
Source: Ghani et.al., 2022

9. DEVELOPING STRATEGIES CAN HELP TO BOOST SUSTAINABLE BUSINESS ENVIRONMENT FOR EMPLOYEE RETENTION

Broad Based Strategies- Strategies that are designed to target overall retention rates and are directed at the entire organization or major subsystems. Providing uniform market-based compensation increases, modifying the hiring process to include retention-related variables, and improving the workplace climate are a few examples. The information required to assist a business in deciding which broad-based tactics to employ often comes from these sources: The main causes of turnover can be better understood with the help of retention research. The tactics that other organizations employ and determine to be successful or unsuccessful are included in effective practices. Benchmarking studies can reveal how a business stacks up against rivals in terms of things like compensation, perks, bonus programs, and the like.

Targeted Strategies- Targeted strategies includes organizational exit interviews, post-leave interviews, stay interviews, employee focus groups, predicted turnover studies, and other qualitative studies. A company may use this information to more precisely pinpoint a problem's location and create highly pertinent and interconnected plans to deal with it. A corporation might evaluate the typical reasons given by women for leaving a company and come up with initiatives to address this group of workers, for instance, if female professionals are leaving the company in large numbers.

Proposed Model



10.MANAGERIAL IMPLICATIONS

This study will help managers effectively implement employee retention strategies and practices in their organizations. The study illustrates how effectively and significantly employees could be motivated and retained in the organizations. Further it will help the organizations to achieve sustainability in the businesses by focussing on employee retention. Organizations can plan strategies for overall increased employee retention, performance, and sustainability.

Benefits of aligning sustainability with employee retention:

- i. **Shared Values:** When employees feel aligned with an organization's values and purpose, they are more likely to stay and contribute wholeheartedly.
- ii. **Positive Impact:** Focusing on sustainability allows employees to see the direct positive impact of their work on the environment and society.
- iii. **Innovation and Creativity:** Encouraging employees to contribute innovative solutions can drive engagement and contribute to the company's growth.
- iv. **Talent Magnet:** Prioritizing sustainability makes the organization a magnet for like-minded talent, which aids in maintaining a skilled and committed workforce.

11. CONCLUSION

Employee retention appears as a fundamental component for creating sustainable organizations in the fast-paced and cutthroat world of contemporary business. The review of the research demonstrates that keeping employees reduces costs, boosts productivity, and generates a positive culture that promotes employee engagement and overall company success. Recognizing the strategic importance of employee retention remains crucial in strengthening the foundation for long-term viability as organizations continue to adapt to changing circumstances.

In order to create sustainable enterprises, the importance of retaining employees cannot be stressed out. This method acts as the foundation upon which businesses can build a robust and successful future. High employee turnover disrupts productivity, harms company culture, and depletes institutional knowledge in addition to the financial losses it causes, as this discussion has shown. An effective employee retention plan, on the other hand, encourages loyalty, raises job satisfaction, and strengthens organizational cohesion.

Businesses build the foundation for long-term success by valuing and investing in their people. Employee engagement increases the likelihood that they will make original contributions, work well with others, and remain committed to their jobs. Additionally, a workplace that fosters professional development and provides competitive remuneration packages fosters a sense of belonging, which lessens the temptation to look for possibilities elsewhere.

Effective employee retention necessitates a complex strategy that includes open communication, continual skill development, and the appreciation of individual contributions. Through such initiatives, businesses may develop a staff that is not just devoted but also an ardent supporter of their vision and core principles. In this way, employee retention develops into a self-sustaining loop that draws in top people, spurs innovation, and strengthens the competitive edge of the business.

The need for employee retention is more important nowadays in a business environment that is continually changing and in which resilience and adaptation are crucial. Businesses that prioritize their employees' well-being and professional development not only maintain their current operations but also build the groundwork for a durable, profitable future that is able to withstand the difficulties that lie ahead.

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ABOUT THE BOOK

The discussion surrounding sustainable economic and management practices has taken on unprecedented significance in an era characterized by rising environmental concerns and the pressing need for responsible resource management. The comprehensive book "**Sustainable Economic and Management Practices: Challenges and Future Prospects**" explores the complex interactions between economic development, corporate governance, and environmental protection. The book discusses the complex issues that modern business enterprises must deal with and provides smart methods for incorporating sustainability into their fundamental procedures.

The book's focus is on management techniques that can address problems and encourage the adoption of sustainable practices. The book presents case studies of businesses who successfully made the switch to circular business models, emphasizing the advantages realized in terms of less waste and increased profitability. The book additionally addresses the value of stakeholder participation. Sustainable practices require cooperation between corporations, governments, civil society, and consumers in order to succeed. The chapters in the book explore the idea of shared value, in which firms match their goals with social demands to produce benefits for both.

The book provides a comprehensive viewpoint on the complex interplay between business management, economic development, and environmental protection. The book provides an extensive set of resources for incorporating sustainability into their business practices by addressing problems, offering case studies, and suggesting creative alternatives. It emphasizes the fact that adopting sustainable practices is not only morally just but also a strategy to build resilience, generate money, and achieve long-term success in a world that is always changing. This book serves as a guide for a future where economic prosperity and environmental responsibility coexist peacefully while corporations continue to struggle with the challenges of the 21st century.

The book entitled "**Sustainable Economic and Management Practices: Challenges and Future Prospects**" is divided into two volumes. Volume 1 covers sustainable consumption and production, sustainable green finance, green aspect of cryptocurrency, energy consumption, sustainable cities, circular economy, social entrepreneurship, sustainable business and development, digital economy, sustainable marketing, and consumer behavior.

Volume 2 covers sustainable consumption and production towards sustainable future, green investment, employee retention and sustainable practices, green HRM practices, sustainable research environment, contribution of environment in promotion of entrepreneurship, role of CSR in attaining educational goal, blue economy.



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