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SASMIRA'S BUSINESS REVIEW 2021
ROLE AND IMPACT OF SUSTAINABLE DEVELOPMENT IN THE POST PANDEMIC WORLD

SASMIRA'S BUSINESS REVIEW 2021
Role and Impact of Sustainable Development in The Post Pandemic World
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Message from President

It is my pleasure to welcome you to the National E-Conference on "Technology, Innovation and Entrepreneurship: Recent Trends and Practices". I would like to express my personal gratitude to all faculty members, research scholars, delegates and participants for their support in making this conference a huge success.

SASMIRA has always been a hallmark for entrepreneurship and excellence. I am glad that this conference is sponsored by AICTE. The theme for the conference is now more contemporary after the pandemic situation. I am overwhelmed by the response to this conference and feel delighted to see SASMIRA going to the path envisioned years ago.

Innovation is the buzzword today and today's dynamic world requires innovation and entrepreneurship to be at the focal point of inclusive growth. I am sure this publication will be delivering insights and bring into light all efforts made by the industry in this context.

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Maganlal H. Doshi
President, SASMIRA

Message from Vice-President

I feel very happy to welcome all the participants to the National E-conference on "Technology, Innovation and Entrepreneurship: Recent Trends and Practices". A conference of this size relies on the invaluable contributions of many volunteers, and we would like to acknowledge the efforts of our Organizing committee for their tireless efforts. We are also grateful to all the authors who trusted the conference with their work and submitted their research papers for this conference.

Technology, Innovation and Entrepreneurship are inter-woven and act as three pillars for any nation's economic growth and prosperity. India has always been on the global picture for its entrepreneurial spirit and innovation-related ventures. I am sure there will be many more entrepreneurs taking up the responsibility of building the economy of the nation.

I am also glad to share that AICTE has sponsored this Conference for SASMIRA which focuses on different aspects of entrepreneurship, technology and innovation. We thank all of you again for attending the conference and looking forward to your participation in our forthcoming conferences and Events.

Mihir R.Mehta
Vice- President,
SASMIRA.

Message from Executive Director

On behalf of SASMIRA, I extend a very warm welcome to all the delegates and participants for the National E-conference on "Technology, Innovation and Entrepreneurship: Recent Trends and Practices". SASMIRA has borne the mantle of excellence, committed to ensure the students their own space to learn, grow and broaden their horizon of knowledge by indulging into diverse spheres of learning. This E-conference is in line with our objectives and in our endeavour to raise the standards of discourse, we continue to remain aware in order to meet with the changing needs of our stakeholders.

The theme of our conference focuses on technology, innovation coupled with entrepreneurship which is definitely an important driver of change in this current situation of crisis. I sincerely thank the entire organizing team for organizing such conference and AICTE for sponsoring the conference. I would like to thank our participants and authors for trusting us with their work and submitting their papers for the conference.

U. K. Gangopadhyay
Executive Director,
SASMIRA

Message from Director

Warm and Happy greeting to all. It gives me a great sense of achievement in presenting the proceedings of the National E-conference on "Technology, Innovation and Entrepreneurship: Recent Trends and Practices" which is sponsored by AICTE.

As we move more and more towards MAKE IN INDIA and start up environment, the theme of Entrepreneurship and Innovation has been purposely selected for this conference. At SASMIRA, we encourage the environment of entrepreneurship among students through our E-cell, I would like to congratulate the entire organizing committee and AICTE for making this conference a highly participated one.

I would like to take this opportunity to thank all the Delegates, researchers and Industry professionals who have contributed to making this conference a success through paper submission and their active participation. I hope these proceedings containing the report of the seminar and the papers would prove a challenging contribution for the better promotion of the innovation and entrepreneurship as a whole.

Dr. Tandon Kamal
Director
SASMIRA

Proceedings of E - Conference, 2021 'Role and Impact of Sustainable Development in the Post Pandemic World'

Conducted on Saturday, 20th November, 2021

Introduction:

The way we approach development, affects everyone. The impacts of our decisions as a society have very real consequences for people's lives. The reaction to the pandemic has converted our economies, our lifestyles, how our public and personal sectors interact, and it has executed so overnight. Millions and tens of thousands and thousands of humans are sheltering in place, operating from home, and converting their conduct of intake and travel. These modifications are the end result of draconian measures to shield human life, however the reality that we can make those forms of shifts demonstrates how lots we're together able to while threat is at hand.

Study and discussion on development that is sustainable and is a development in the true sense is not a choice today but a necessity, a necessity that is to be understood and realized at earliest.

Objective of the conference:

Conference on 'Role and Impact of Sustainable Development in the post Pandemic World' was an attempt to gather like-minded individuals from across the country and across the globe, to learn, discuss thoughts, network, share ideas, create new ideas, and to ignite motivation. The reason sustainability is of immediate importance, are learnt well in the pandemic. With this conference we expanded our professional and personal development and exchanging thoughts to come to a suggestion that works towards sustainable development. Discussion and inputs from leading academic scientists, researchers and scholars, their experiences and research results on all aspects of Sustainable Development provided a premier interdisciplinary platform. Practitioners and educators had opportunity to present and discuss their ideas and concepts of Sustainability and to throw light on the need of Sustainable Development. It facilitated interdisciplinary exchange of ideas and findings. This conference as an attempt to address the major challenges faced by the practitioners and policy maker and in the process trying to find out a solution for the same.

Chief Guest, Keynote Speakers, Panelists who contributed to the session:

1. *Shri. Maganlal H.Doshi (President, SASMIRA)*
2. *Shri. Mihir R. Mehta (Vice President, SASMIRA)*
3. *Shri U.K. Gangopadhyay (Executive Director, SASMIRA)*
4. *Dr. Tandon Kamal (Director Education – SASMIRA)*
5. *Mr. Nabjeet Ganguly (Chief Marketing Officer – India: Informa Markets)*
6. *Dr. Nishikant Bohra (Senior Facilitator - Regenesys Business School: South Africa)*
7. *Dr. Sanskruti Kadam (Dean - SASMIRA's Business School)*
8. *Dr. Priya Sengupta (Assistant Professor - SASMIRA's Institute of Management Studies and Research)*

Proceedings of the Conference:

The conference was declared opened by the conference convener Dr. Rupali More, with the introduction to theme and the objective of the conference. She welcomed the Chief Guest, Keynote speakers, Panelists and the paper presenters. She expressed her gratitude towards the management committee and all dignitaries and speakers who have joined from all over the country. She proudly shared that the conference has overcome the challenges of time and has connected to the delegates from various parts of India. The conference stood differentiated on time where augmented and virtual technology are induced and have penetrated to the basic educational and research system. Dr. Rupali on a ritualistic note declared the conference open and thanked each and every one to have contributed for the conference. She further elaborated on the theme and its importance and relevance with the help of a video.

Dr. Tandon Kamal - Director Education, SASMIRA, in his welcome address, thanked management and the core committee for their support and organizing a conference on the topic of such relevance. He introduced the participants to the legacy of SASMIRA and its Institute of Management Studies and Research. He added how SASMIRA has always envisioned the importance of sustainability and has inculcated the same to its students. He said all systems and societies naturally develop. However, In this day and age, development is moving at breakneck speeds, thanks to advancements in technology. The only problem is that not everyone considers the downsides that come along with unbalanced economic growth including impacts on people's well-being and environment. The theme "Impact of Sustainable Development would encourage respecting the existing resources.

Dr. U.K. Gangopadhyay – Executive Director SASMIRA in his message talked about the focus and relevance of the theme. He envisioned that a development coupled with sustainability is the only way to secure the future of the generation to come. "Focusing on the importance of the theme, I am sure that sustainable development involves satisfying the needs of the present population without endangering the capability of the future population to satisfy its own need".

Chief Patron, Shri Mihir Mehta sir, Vice President, SASMIRA in his message 'Sustainable development is not just about the environment. Its focus is much broader than that. It's all about meeting the diverse needs of people in different communities, social cohesion, creating equal opportunity to ensure a strong and healthy society' emphasized on the importance of sustainable development to the society. He broadened the concept of sustainable development to much complex race of human nature and its need. He insisted environmentally sustainable economic growth refers to economic development that meets the needs of all without leaving future generations with fewer natural resources than those we enjoy today.

President, SASMIRA, Shri Maganlal Doshi sir elaborated that understanding sustainable development and its goals is the first step to learning what we can do to make it happen. There are many initiatives already in place, but still many roadblocks to sustainable development that have to be overcome. The essence of this form of development is a stable relationship between human activities and the natural world, which does not diminish the prospects for future generations to enjoy a quality of life at least as good as our own.

He presented the idea of environmentally sustainable economic growth is not new. Many cultures over the course of human history have recognized the need for harmony between the environment, society and economy. The 'environmentally sustainable economic growth' is synonym to the prevalent concept of 'Sustainable Development'. The goal of which is to achieve balance/harmony between environment sustainability, economic sustainability and socio-political sustainability.

Economy, society and the environment as the pillars of Sustainability.

Mr. Nabjeet Ganguly (Chief Marketing Officer – India: Informa Markets), opened his address highlighting the relevance of the theme. He explained, 'sustainability is about survival'. The goal of resilience is to thrive. We must shift our thinking away from short-term gain toward long-term investment and sustainability, and always have the next generations in mind with every decision we make. The future is green energy, sustainability, renewable energy. He further explained that Sustainability improves the quality of our lives, protects our ecosystem and preserves natural resources for future generations. In the corporate world, sustainability is associated with an organization's holistic approach, taking into account everything, from manufacturing to logistics to customer service.

He reiterated that human sustainability aims to maintain and improve the human capital in society. Investments in the health and education systems, access to services, nutrition, knowledge and skills are all programs under the umbrella of human sustainability. Natural resources and spaces available are limited and there is a need to balance continual growth with improvements to health and achieving economic wellbeing for everyone. In the context of business, an organisation will view itself as a member of society and promote business values that respect human capital.

Work for Future: A Sustainable Perspective

*Keynote speaker, Dr. Nishikant Bohra in his note very impressively highlighted the need to work for future that is safe, secure, green and a better place for all living being. With the help of examples, he helped to visualize how today's development is a sin to the human race. People working in goldmines, tea gardens, coal mines and their issues were discussed in the words of Dr. Bohra. He said "What's certain is that environmental protection is already part of the strategic actions being implemented by those companies aspiring to be **sustainable companies**. Contrary to lifelong organizations, which have been compelled to undergone profound transformations, for a great deal of new ones the* green gene *is already embedded in their DNA". In the year 2000, the necessary participation of the business sector towards the achievement of these objectives demanded by the UN was institutionalized thanks to the Global Compact. It was signed by more than 13 000 entities from 170 countries, urging companies to align their strategies and operations with universal principles.*

He said, the Sustainable Development Goals (SDGs) are the essential cornerstone to steady and secured economic growth and enterprise flourish through removing poverty in an inclusive way, whilst shielding the environment. It is not possible to have a strong, business entity in a world of growing inequality, poverty and climate change. Business has the possibility to include the SDG schedule and comprehend it as a driving force of enterprise strategies, innovation and funding decisions. Doing so makes it a business in real sense and helps them compete in not only the national but the international level.

Sustainability is no alternate but must for a better future:

Dr. Sanskruti Kadam expressed her pleasure to join the conference as a panelist. She congratulated participants and researcher to work on this extremely relevant and important topic. She elaborated with an example of Unilever—simply by developing innovative washing products that require less water, women in developing countries need to spend less time collecting water, and have more free time for education, jobs and child care. This is especially true in parts of Africa and Asia where they can walk up to six kilometers a day to the nearest water source.

She insisted that the path to get where we stand today has not been easy. We had to convince our shareholders and investors that sustainability was the way forward and could generate real value for development.

Dr.Priya Sengupta was glad to witness the opinions of the presenters with respect to need of sustainability. Sustainability in the field of HR, Finance and Marketing was well touched upon by the presenters. She congratulated the research scholars and the students for actively participating in this event. According to her the future of any country depends on the youth and over usage of resources would hamper their growth and development. Spreading the message of sustainable development in business is the need of the hour and the intention of the conference was to resonate sustainability.

Details of papers presented in the conference:

1. *A study of green recruitment practices for sustainability- Ms. Richal Tuscano, Dr. Rekha Singh*

2. *Effect of digitalization on education in sustainable development in Rajasthan: Challenges post pandemic. Dr.Atul Gupta*

3. *Scope of green bonds in digital india- Ms. Ankita Goswami*

4. *From waste to resources: Shifting paradigms for better India. Ms. Dipti Parab*

5. *Consumers perception towards electric vehicle in India. Ms. Aaryti R Vyas*

6. *The sustainability of the idea of sustainability. Mr. Shawn Langford*

7. *Waste Management for better future- Mr. Sanat Vagal, Mr. Niranjan Wagh, Mr. Sharvin Chaubal,*

    Ms. Anita Gupta, Mr. Paras Engineer

8. *Work from home: A step towards sustainable future. Ms. Sakshi Kamerkar, Ms. Pravriti Srivastava, Mr. Aman Mandawkar*

9. *Post pandemic economic challenges. Dr. Satish G Athawale*

10. *Sustainable business approach- Mr. Viral Umesh Dharamshi, Mr. Mohmmad Nabil Abdul Niyaz Shaikh*

Ten Presentations were conducted in the conference. The Paper presenters were congratulated and felicitated with the certificate of appreciation.

The conference was concluded with the National Anthem.

A Study of Green Recruitment Practices for Sustainability

Prof. Richal Tuscano,
Assistant Professor
Dr. Rekha Singh,
Associate Professor

Abstract

In current scenario, Governments, corporate, NGOs, private organizations and institutions from a various fields have begun to show concern in environmental issues. "Go Green" has become a slogan in many organizations – Green technologies, green policies, green business practices etc. has now one more to the cart – Green Recruitment under Green Human Resource Management (Green HRM). Green Recruitment Practices are cost-effective approach which saves time, decreases cost, control energy consumption and pollution and also facilitates smooth functioning of administrative work in organization. It is associated with manufacturing, transporting, and recycling paper products. The present study explores the Green Recruitment Practices to promote sustainable business practices. Green Recruitment means a paper-free recruitment process with a minimum impact on environment. The researcher has focused on various approaches of Green Recruitment Practices in the present paper.

Key words – Green Recruitment, Green HRM, Go Green, Sustainability

Introduction

Green Human Resource Management (GHRM) is an emerging trend that includes all practices of HRM that follow the objectives of environmental sustainability. GHRM includes those HRM policies and practices that inspirit sustainable use of resources and reduce the unsafe effects on the environment originating from business activities (Zoogah, 2011). Green HRM offers the opportunity and sustains long-term change of employees' mindset and behaviours, which are required for environmental change in the entire organization. Ecological sustainability matters from a cost-effective viewpoint, as it saves organizational costs, increases employee motivation and minimizes the impact on environment. Practices and policies of Green Human Resource Management include Green Recruitment and selection processes, Green Performance

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Management, Green Learning and Development, Green Compensation and Benefits etc.

Green recruitment means to hire people who have knowledge and understanding of environmental management systems in the organizations (obaid & Alias 2015). Job aspirants' awareness on Green Business Practices is the basic aspect of Green Recruitment practices. It is said that hiring candidates who are eco-friend will help in improving environmental and organizational performance of firms (Bhutto & Auranzeb, 2016). Big organizations like Google, General Electric and Timberland have implemented green recruitment practices and recruit candidates who have green mindset. Car maker company in Britain Rover Group has made environmental responsibilities and qualifications part of every job profile (Wehrmeyer, W. 1996). As per the PWC report 65% of job aspirants from countries like India, USA, UK, China and Germany prefer working with the organizations that are socially conscience.

The present study explores the Green Recruitment Practices to promote sustainable business practices

Literature Review

Guerci et.al (2015) studied the distinct and direct effects of green recruiting practices on attracting applicants and the interactive effect of 'green' and 'non-green' recruitment practices on attracting applicants. The findings supported the impact of green reputation on attracting applicants, but no impact of information on the recruitment website about company environmental policies and practices.

Obaid and Alias (2015) investigated the impact of human resource management factors like green recruitment, green training and development and green learning on the performance of the firm. The findings of the study revealed that there is a positive influence of recruitment, training and development and learning on the performance of the firm.

Diana (2016) found the effectiveness of green recruitment among the 100 HR executives of IT sector. Statistical tools were applied to quantify the data. The findings of the study revealed that majority of the HR executives felt green recruitment as an effective method of sourcing the right candidate.

Mwita and Kinemo (2018) investigated the role of green recruitment and selection on performance of processing industries in Tanzania by using Tanzania Tobacco Processors Limited (TTPL) as a case study. The study found that there is a linear

relationship between green recruitment and selection and performance. TTPL's Green Recruitment and selection practices are in place and they contribute in attracting more qualified job candidates

Sinaga and Nawangsari (2019) examined the effect of green recruitment, green training and Organization Citizenship Behavior (OCBE) among 100 people. Structural Equation Modeling (SEM) has been used for data analysis. The findings of the study revealed that green recruitment, green training and organization citizenship behavior (OCBE) have positive and significant effect on employee performance.

Khan and Muktar (2020) investigated whether green recruitment practice attracts potential job aspirants to join environmental responsible firms through organizational attractiveness. Survey of 127 students studying in university in Malaysia was conducted. Regression analysis has been used as a statistical tool to analyze the data. The findings of the study revealed that green recruitment is a source of attracting potential candidates to pursue career in the green organizations and will allow practitioners to merge green human resource management with their traditional human resource policies to recruit quality candidates.

Martins et.al (2021) investigated the impact of green hiring practices on the sustainable performance of public and private healthcare organizations. Quantitative research approach was used for data collection. Survey of 160 responses was gathered from public and private healthcare organizations. Partial least square–structural equation modeling has been used for data analysis. The findings of the study revealed that green recruitment has a positive and significant impact on environmental performance, economic performance, and social performance. The findings further revealed that green performance management and compensation significantly mediate the relationship between green hiring and sustainable performance of public and private healthcare organizations.

Objectives of the Research:

- To study the concept of Green Recruitment
- To analyze cost effective approach in implementation of Green Recruitment Process
- To analyze the trends in Green Recruitment

Figure 1:

Conceptual Framework: (Authors' own creation)

Green Recruitment Process	Organizational Benefits
• Advertisement of Job role through social media, various job portals • Resumes are invited through online medium • Interviews are conducted through telephonic, zoom, Skype etc. • Video based interviews • Document submission & verification on email	• Save energy/power • Use recycling products • Improves employer branding

Green Recruitment

Cost Effective Approach

Organizational Performance and Environmental Sustainability

Environmental Impact
- No Paper and Processing
- No Travelling

Environment sustainability is one of the top priorities of the organizations. As shown in the figure 1, to align with environmental policies of the organizations, HR department have moved from traditional recruitment practices to Green Recruitment practices.

Some of the initiatives under Green Recruitment followed by the organizations are:

- Advertisement of job role through social media or various job portals like Naukri, Monster, indeed, Linkedin etc.

- Resumes are invited through online medium like email, online application forms etc.
- Telephonic, video based or digital interviews are conducted
- Online documents submission and verification
- Reference check through email and phone

- Offer letter sent through email
- Induction programs are conducted on online mode

Which will lead to organizations benefits includes save energy and power, improves employer branding and reduce paper processing and travel related environmental impact.

Conclusion:

Go-Green initiatives of the organizations create a positive influence on the performance of the company. It attracts more qualified job aspirants and has a significant impact on the performance of employees. Organizations have aligned their mission and values to the Green Recruitment practices of their department. It helps organizations to improve its brand value and differentiate from its competitors. Under Green Recruitment practices companies hire employees whose environmental goals and values fit those of the company.

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Effects of Digitalization on Education in a Sustainable Development in Rajasthan: Challenges Post Pandemic

Dr. Atul Gupta,
Associate Professor

Abstract

Education plays a vital role in the sustainable development of not only the people but also the nation. Education is being redefined today compared with what it was centuries ago when it was first taught. In light of the changing global situation in recent times, education is one of the most important fields. Due to the challenges posed by the COVID-19 epidemic many universities, colleges, schools and all institutions are closed worldwide. Eventually, more than 1.2 billion students are unable to continue their studies successfully in classrooms around the world.

From an open classroom room that was run under a tree to a guru ashram to closed class lessons. Added to this is a section presented with an introduction with a LCD, OHP projector and aided technology and equipment. As a result, education has changed dramatically, with a growing diversity of e-learning, with distance learning and digital platforms.

The current study is a descriptive study that analyzes the various hopes and challenges in the education sector in Rajasthan. The paper also focuses on the implications of digital innovation in sustainable development in the education sector. Adhering to the relevant research process, the study collected and analyzed data from 200 respondents belonging to all strata population coving the four major cities of Rajasthan i.e., Jaipur, Kota, Udaipur and Bikaner. Primary data were used in the study with the use of structured questionnaire. Data analysis was carried out by using appropriate test. The results of this analysis have led us to conclude that the majority of participants in the education process have adapted to online work, and subsequently saved the years of study in 2020-2021 and respectively in 2021-2022. The present study is useful for educational institutions and policy makers in terms of developing strategies and policy recommendations to support teachers and students with any future epidemic.

Key Words: Pandemic, digitalization. IOT, E-learning

Introduction

In India, from most recent couple of years there has been a significant ascent in Digital and shifting Classrooms to Live virtual platform at various degrees of learning and knowledge. But due to the pandemic situation of Covid-19 the digitalization in education sector is noteworthy. Whether it is

conducting online classes, FDP, Seminars & Conferences for the students; the use of various virtual platform like google meet, Microsoft teams, zoom app, Webex and many other has significantly increases. Education through digital platform is fun learning for all cadres and particularly effective for kids' knowledge as the inventive sound video include helps the psychological components in a kid's mind. Digital education is offering both teacher and students new prospects to teach, learn and excel. Education institutes are increasingly adopting digital teaching methods in their academic learning process and thereby striving to make the classroom atmosphere more encouraging and participatory. In other words, we can say that the digital learning is Info-tainment i.e., combination of both information and entertainment.

DIGITAL EDUCATION IN INDIA

It is right to say that digital edification is the future of learning. Digital education in India is going to be the new and important visage of upcoming education system. It is astonishing to see, especially after the pandemic Covid-19 situation, that how smart technologies are altering the overall framework of education process in the country. For complete academic year the education and learning of the students irrespective of their class (i.e from pre-primary to post graduate) is completely dependent on the e-platform. The entrance of advanced education system into the encompassing region is developing quick. Moderate high velocity web and direct-to-gadget advancements are enabling understudies to examine courses on the web and work on their abilities and information.

The accretion of digital technologies is bringing essential changes in the way education is being conveyed and established. With the digitalization of education, the exceed programs for education is improving day by day. It is providing a great platform & opportunities for both teachers and students to teach and learn thereby ensuring better participation in the overall learning process.

The condition of education in India is miserable, particularly in rustic regions. The Education is empowering and redefining. The present education sector is combating with grave difficulties like obsolete showing strategies, lack of educators, deficient understudy instructor proportion, and inadequate instructing assets. The innovation is likewise assisting educators with associating with understudies distantly spread across a few areas all at once. Intuitive advanced media will surely help in tending to

the deficiency of educators in the country soon. For the crowded nation like India training isn't just for adapting however it is likewise considered as an establishment for discipline, inventiveness, advancement and a significant way to dispense with the endless loop of obliviousness and destitution from the general public. It will prompt work age and working on the economic wellbeing and expectation for everyday comforts.

As the Government of India has enunciated the New Education Policy 2020, it is seeming that education is the forefront of the government and it is the national agenda. The objectives of the parents and the children are growing considerably. Educational transformation for 21st-century should be the requirement into the mainstream thinking of the government, with a priority on expansion, excellence, and equity. The government is also taking many initiatives and announced to open various IITs and IIMs, about 900 Universities along with the increased funding and Right to Education Bill. But somehow it is proving only a statement by the government as the intent was not so clear. For example, in 2020-2021 budget the

AVENUES FOR STRONG E-LEARNING PLATFORM

Effective and robust e-learning requires

government spent only 3.2 per cent of GDP on education, down from 4.14 per cent in 2014-2015. It means government has reduced education spending by 25 per cent. Though government has announced many programs for Digital India but in the recent budget the no fund was allocated to develop the digital education platform.

In Rajasthan the Department of School, Government of Rajasthan is implementing the following programs on digital learning to support student and teacher learning during Covid-19 as well as overall digital practices in the state:

1. SMILE program- social media Interface for Learning Engagement
2. Shikshadarshan – Educational content via TV
3. Shikshavani - Radio broadcasts for students who don't have access to smartphones
4. Hawamahal – Joyful Saturday
5. Conducting live sessions for students on career guidance via YouTube
6. Kala Utsav – Summer Camp
7. DIKSHA content
8. E-content invited via ShalaDarpan

number of approaches that can help build a solid foundation for learning in this current environment. These are:

Figure 1

Source: Self-Generated

Restructuring: Reliance system dependence is required. From the redesign of the content delivery process to the targeted classrooms focusing on the deep collaboration of the education industry and the adoption of technology is needed. It is difficult to establish a universal pattern in India with the same stroke as it is true of everything when it comes to the world in terms of population, complex structure and determined as India. And like most learning methods, online education helps some students very well, such as those who are self-motivated and students who are reluctant to speak in a live classroom. Some of the benefits of e-learning include things that are not possible in the face-to-face class, such as all students who simultaneously contribute to a document with a collaborative platform. These ever-producing tools are reaping the benefits of e-learning.

Proper Training: Pedagogies should evolve as per the requirement of the online classes and proper training should be imparted to the teachers and students so that the new processes of learning can be implemented more effectively. Teaching online demands rational support from the institution to facilitate quality education. The institute must ascertain to have satisfactory institutional resources.

Advanced Methods: The advanced methods and tools that would help to create a virtual classroom are needed to be further developed. Basic essentials to have a effective online education is required in the best conditions possible. Equipment needs to be renewed and fully operational. The online

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learning environment allows teachers to go beyond traditional learning methods to incorporate a more inclusive and interactive learning process. Effective learning tools include role-playing and role-playing. Simulation helps students gain skills in a visually safe environment that mimics a real and expensive world.

Flexible Structure: The educational structure and pattern of the school can be made more flexible through a standard gate or forum for local children to help them compete and grow with their peers outside of their educational institution. Learning about skills or knowledge gained through learning, knowledge or teaching. Online learning is a re-imagining of the educational process that enhances visual classroom software to engage students geographically and geographically to the fullest. This area brings flexibility to the process in terms of planning, content availability, and frameworks, which

TRENDS OF DIGITAL EDUCATION IN INDIA

The few trends of digital based education in India are mentioned below:

Online Media: Online media as a learning tool has improved dramatically. Today, many teachers and students use online media as an integral part of all e-learning information. It allows students to find resources there and choose from.

Extracurricular Activities: As full student development is required then the focus should be on providing essential skills and external activities. This structure is often used for soft skills training focusing on interpersonal interactions. In college settings, an integrated learning approach can be used to teach students to become teachers themselves.

Customized learning programs: Creating the adaptive and customized learning programs for nurturing the individual requirement and talent is required. The components of e-learning and conventional learning incorporate comparative elements, like inspiration, content boost, freedoms to apply instruction, an evaluation which might involve tests, tests, and exhibitions, and prizes, which are customarily grades that help the accomplishment of a degree or accreditation

is an important stage these days to trade data on important issues. In addition to having the option to share information anytime, anytime, when online media is also a great resource for creating the freedom of planning to integrate social exercise with close work on a financial basis.

Intuitive learning Resources: With the emergence of smart gadgets such as navigated study halls, portable apps, etc. learning is now not limited to the standard homeroom set. The latest college degree program is reset with these computer resources. Various educators integrate accurate learning modules that utilize the best of new inventions.

Integrated learning is enhanced through shared development: Organizers, people can connect with others spread around the world to ease tasks and activities. Moreover, the quality of teaching is not limited to one area or another. It is currently not a local obligation that currently follows global transformation. Truth be told, educational foundations acknowledge that providing computerized training is essential to their endurance and development.

Monstrous Open Online Courses (MOOCS): MOOC classes enable you to study them critically. The spread of online courses through MOOC programs in India is a developing business sector. MOOCs help a ton of young people in the nation rebuild their skills and abilities. Empowering a large number of Indians is not close to rational training so that they can work their jobs through access to a level of skills-based education.

MOOC Learning works with undergraduate and professional students working to study for themselves from anywhere and anytime. Also, the few studies offered under this section provide a lot of evidence that is well known by institutions and organizations as a work ethic. Developing patterns show that India is a huge market for online courses offered in the MOOC category. There is a constantly growing need among students who have tried competent courses and moreover for active leaders to continue to refine their skills for access to opportunities in specific regions. For such people, MOOC-based customizations are a great help.

Progression in Visual Learning Aids: Audio-Video based learning is getting pace in India: Video-based learning is increasingly coming from India: Educational learning recordings are especially popular among school attendees because it joins reading fun. The special mode of instructional learning is very accurate in nature. This type of display system is not limited to audio video but also includes educational programs, webcasts, digital books, etc. Children are very eager to learn new ideas using these computerized methods.

Intuitive Software – Game-based learning: Game-based learning is the next big thing that will reshape the end of training in India

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especially the K12 area. It is now creating a climate in which students will no doubt be able to engage with what is especially unsatisfactory teaching. Changing the 12th position, adapting to the game will no doubt disrupt the world of instruction and help build more prepared staff for the future.

Review of Literature

In the present study many literatures were review. Some of them major contribution was as follow:

Jayesh M. Patel (2017). He affirmed that there are many electronic instruments which can be utilized in the study hall for advanced instruction like twitter, Dropbox, and Prezi, Orkur, Instragram. Educators and students are keen on adapting online computer-based education but due to the absence of information they are not starting something similar. Further he opined those electronic apparatuses will make the picking up intriguing and understudies will get roused which ordinary study hall can't do. Presently the instructor driven methodologies are making getting the hang of exhausting in any event, for intriguing parts, utilization of advanced innovation makes in any event, exhausting substance fascinating and happy. The idea of kid focused methodology will be satisfied distinctly with the assistance of computerized innovation.

Jinal Jani and Girish Tere (2015). In their findings opined that computerized India program presented by administration of India is significant for the advancement of advanced instruction in the country. Computerized India constrain is an undertaking started by Indian Government for making of advanced engaged society the nation over. Further they stated that iIt will help in assembling the ability of data innovation across administration offices and facilitates in conveying the various government's projects and administrations. Advanced India will help in making position, giving fast web and computerized storage framework, etc. Advanced India has three significant segments in particular computerized frameworks creation, computerized conveying administrations and assets and advanced instruction.

Himakshi Goswami (2016). She stated that the examination featured the various chances and difficulties of computerized India program in India. Computerized India program presented by administration of India will facilitate in changing country interested in a carefully engaged economy. This will assist administration of India to coordinate the Government Departments with individuals of India. Further she elaborated that the fundamental motivation behind this

program is to decrease the desk work. It depicts the various chances of the program for individuals of the country. India is having various dialects, culture, and customs, food propensities. The motivation behind advanced India program is to incorporate entire nation carefully however dialects would be the principal challenges in the execution of such program.

Shikha Dua et al., (2015). She examined the various concerns, patterns and difficulties of computerized instruction in India and recommended the engaging ingenious homeroom approach for learning. The upcoming pattern of computerized schooling incorporates digitalized study hall, learning through videos and using playoffs for better learning, etc. she mentioned the various difficulties of computer training in India and the recommended steps to overcome this difficulty. Consistent changes needed in schools and instructor for the improvement of computerized training in India.

An enormous asset of composed material was utilized, which included books magazine articles, scholastic diaries, and websites.

Research Objectives

The present research has following objectives:

i. To ascertain the impact Digitalization of education in Rajasthan.

ii. To ascertain the impact of Post Covid effect on Education in Rajasthan.

iii. To ascertain the association and impact of digitalization and sustainable development in Rajasthan.

Research Methodology

This study aims to measure the effects of digitalization on education as a major challenges Post Pandemic in Rajasthan. The research study is exploratory and conclusive in nature, as it tries to measures the preference and response of the people of Rajasthan region towards digital education. Based on the studies and review of literature, the present study has been designed to abridge gaps in the existing literature. The study is based on the primary survey and data has been collected from 200 respondents with the help of a well-designed, pre-tested structured questionnaire. The convenience method of non-probability sampling technique was used for collection of data from the stated population. People from all the strata of society were included in the survey to make the sample more representative. For data analysis the SPSS tool, version 15 has been used. Table 1 gives

the demographic characteristics of the respondents.

Table 1: Demographic Characteristics of the Respondents		
	Number of Respondents	**Percentage**
Age		
15-25	91	45.5
26-35	73	36.5
Above 35	36	18.0
Total	200	100.0
Locality		
Urban	121	60.5
Rural	79	39.5
	200	100.0

Limitations of the Study

It is true to highlight that every research has its own limitations whether it is being conducted in any area of studies including social sciences. Hence, the present research endeavor also suffers some of the limitations, which are enumerated below:

- The study is confined to the geographical boundaries of Rajasthan.
- The sample from five cities of Rajasthan is drawn, so it may be possible that it might be not applicable to others cities of Rajasthan.
- Since the nature of the study and the complexity entails a greater depth in study for which sufficient time will be not available, time factor is also one of the limitations in the study.

- It is not possible to extract cent percent unbiased answers from the respondents. Some biasedness might have crept in while collecting primary data through questionnaire.

Hypothesis Formulation

The formulation of hypothesis or propositions is the practical answers to research questions. In other way it is an important step or a tentative assumption in the process of which a researcher wants to test for its logical or pragmatic consequences. In due course, a confirmed hypothesis may become part of the theory or sometimes grow to become a theory itself.

The Major hypothesis of the research is:

H_0: There is no significant effect of digitalization on education in Rajasthan.

H_1: There is significant effect of digitalization on education in

Rajasthan.

Analysis and Interpretation
Interest of Respondent in Digital Education: A question was asked from the respondent whether they were interested in digital education or not.

Table 2: Descriptive Statistics of Respondent's Interest in Digital Education		
Response	**Number of Respondent**	**Percentage**
Yes	73	36.5
No	127	63.5
Total	200	100.0

It can be inferred from the Table 2 that most of the respondent (63.5%) were interested in offline classes and prefer to have personal discussion with the teacher. 36.5 % of the respondent were in the favor of the digitalization of education in Rajasthan.

What kind of technologies can and do students use to produce and assignments (e.g., video editing software, PowerPoint, computer, internet)?

 A question was asked from the respondents about kind of technologies can and do students use to produce and assignments. The results were as follows:

Table 3: Descriptive Statistics of Respondent's using the technologies		
Response	**Number of Respondent**	**Percentage**
Video editing	15	7.5
Power Point presentations	63	31.5
Word Document	89	44.5
Computer Internet	33	16.5
Total	200	100.0

The above table 3 depicts that most of the people (89) 44.5% in Rajasthan like word document to submit the assignment. About (63) 31.5% of respondents like PowerPoint presentation to submit the assignment. Also, out of 200 respondents (33) 16.5% of the respondent follow the computer & Internet facilities. About (15) 7.5% of respondents were belongs to the category of Video editing.

Table 4: Reason for Liking/ Disliking of Digital Education on 5-Point Scale											
S. No.	Statement	Strongly Disagree		Somewhat Disagree		Neither Agree nor Disagree		Somewhat Agree		Strongly Agree	
		No.	%	No.	%	No.	%	No.	%	No.	%
1	It helps me to learn	28	14	52	26	37	18.5	34	17	49	24.5
2	I enjoy using it in the class	29	14.5	32	16	48	24	48	24	43	21.5
3	It gives me more control over my learning	35	17.5	32	16	33	16.5	40	20	60	30
4	It creates a more collaborative classroom environment	56	28	28	14	38	19	31	15.5	47	23.5
5	It creates some problems between students (bullying etc.)	35	17.5	30	15	22	11	60	30	53	26.5
6	It helps involve my parents in what I do at school	28	14	52	26	37	18.5	34	17	49	24.5
7	The school equipment is adequate and reliable	64	32	25	12.5	46	23	25	12.5	40	20
8	We have good technical support to deal with problems	64	32	25	12.5	46	23	25	12.5	40	20
9	Overall, it's not worth the trouble it causes	41	20.5	32	16	41	20.5	21	10.5	65	32.5

To what extent do you agree or disagree with the following statements in relation to the use of digital technologies in your school/ college?

A question was asked from the respondents about the agreement and disagreement of the following statements in relations of the digital education. The respondents have marked their response on 5 scale matrixes. The results were as follow

The above table 4 depicts that most of the people (49) 24.5% in Rajasthan like says that the digital education helps them to learn more. About (60) 30.0% of respondents believe that digital education provides more opportunity to control over their learning. Also, out of 200 respondents (56) 28.0% of the respondent disagree that digital education creates a more collaborative classroom environment. About (65) 32.5% of respondents were belongs to the category of strongly agree about Overall it's not worth the trouble it cause

Study of Age Dimension against the Nine Statements of People's Response towards Digital Education

Statements	Source of Variation	Sum of Squares	D.F	Mean Sum of Squares	F-ratio	Hypothesis Accepted/ Rejected
Statement 1	Between Samples	17.342	2	8.671	4.753*	H1 Rejected
	Within the Samples	906.586	497	1.824		
Statement 2	Between Samples	10.710	2	4355	2.735*	H1 Accepted
	Within the Samples	973.122	497	1.958		
Statement 3	Between Samples	7.980	2	3.990	2.174*	H1 Accepted
	Within the Samples	912.220	497	1.835		
Statement 4	Between Samples	4235	2	2.118	1.178*	H1 Accepted
	Within the Samples	893.787	497	1.798		
Statement 5	Between Samples	.772	2	.386	.215*	H1 Accepted
	Within the Samples	890.428	497	1.792		

Table 5: Analysis of Variance of Different Age Group Respondents in Rajasthan

*Significant at .05 level, **'F'** value at .05, (2,497) = 3.01

Study of Locality Dimension against the Nine Statements of People's Response towards Digital Education

Table 6: Statistical Comparison of Five Statements among Urban and Rural Respondents in Rajasthan							
Statements	Group	N	Mean	Standard Deviation	Standard Error	t-test	Hypothesis Accepted/ Rejected
Statement 1	Urban	367	2.91	1.362	.071	2.059*	H_0 Rejected
	Rural	133	3.20	1.340	.116		
Statement 2	Urban	367	3.19	1.378	.072	.991	H_0 Accepted
	Rural	133	3.05	1.474	.128		
Statement 3	Urban	367	3.32	1.368	.071	1.536	H_0 Accepted
	Rural	133	3.11	1.322	.115		
Statement 4	Urban	367	3.71	1.326	.069	2.068	H_0 Rejected
	Rural	133	3.43	1.367	.119		
Statement 5	Urban	367	2.92	1.312	.068	3.420	H_0 Rejected
	Rural	133	3.38	1.352	.117		

*Significant at .05 level of significant 't' at .05(498) =1.97

The nine statements mentioned in the table 4 were analyzed against the age group and locality Dimension of people's responses towards Digital Education were analyzed using the variance and Mean deviation. Accordingly, the hypothesis was accepted or rejected. Thus, the overall finding of the study is that there is no significant difference in the digitalization of education in Rajasthan. Most of the respondents even did not react as per the learning through digital medium. Respondents remain ignorant towards the digital eduvation. For some factors there exists the difference in the response of the people but the magnitude of difference is less. Hence, we accept our alternative hypothesis and consequently we reject the null hypothesis of the research i.e. "There is significant effect of digitalization on education in Rajasthan."

CONCLUSION

Digital Reading is fun to read for all frames and is a great influence on the learning of young people as the visual acuity of thoughtful video helps parts of the brain in a child's brain. The combination of INFO-TAINMENT associated with computer literacy makes it more efficient, relevant and addresses our health and environmental aspects in an interesting way.

Students see this as a flexible choice that allows them to focus on their time and speed. Educators also think it is helpful to set up their own learning programs with the support of newer students. Teaching turns into a smooth experience with the appropriate lattice of customized piles with a combination of movement, gambling and the

effects of mainstream media. Therefore, online teaching and learning strategies deserve our most commendable but in the performance of their official function, which is to improve, support and develop close and independent learning methods. Switching from a teacher's classroom to furthering training will require a lot of effort over time.

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SCOPE OF GREEN BONDS IN DIGITAL INDIA

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Abstract

India's contribution in sustainable development goals (SDG) will depend on the selection and investment of green projects. Green Bonds are basically a financial tool where the proceeds are invested exclusively on green project that generate climate or other environmental benefit. FinTech sector (Financial Technology) can play an essential role for advancement of green bonds with the help of artificial intelligence, block chains and robotics. This research will focus on growth of green bonds in India and hindrance on the growth of green bonds. It will also explore and suggest how Fintech sector one of the essential elements of Digital India can play important role in the growth of green bonds and green finance.

Keywords-Green Bonds, FinTech, Artificial Intelligence, Blockchain, Digital India etc.

1.Introduction

One of the latest financial concepts which is gradually gaining acceptance in the market is Sustainable Finance. Sustainable Finance are an investment decision that not only focus on financial return but also takes into consideration environmental, social and governance factor. Categories included in sustainable finance are green bonds, green-tagged loan, green investment funds and climate risk insurance. Green Bonds are basically a financial instrument where funds are invested only on climate and environmental project. Green Bonds are gradually gaining momentum in Indian Market to meet the Paris Agreement Target and Sustainable Development Goals. According to British non-profit Climate Bonds Initiative, the world issued $106.86 billion of green bonds in the three-month ended on 31st March, 2021.As per the Climate Bonds Initiative Report, Global Green Bonds Issuance reached a record of high of $269.5 billion in 2020.The report also indicate globally green bonds are blooming and expected to touch $2.36trillion by 2023

India's first green bond was initiated by Yes Bank in 2015 to raise INR 5 billion to enhance long-term resources for funding renewable and clean energy project. As per the latest report, India is becoming second largest green bond market after China. Within a span of 5 to 6 years, many commercial banks, public-sector undertaking, state-owned financial institution, corporates etc. started issuing

green bonds. SEBI, the Indian securities market regulator has issued a circular regarding disclosure requirement to be followed for listing of green bonds on Indian Stock Exchange. However, India still does not have a separate board or committee dedicated for law governing issuance of green bonds. Green Bonds are traded in India through GIFT IFSC with listing in both BSE (Bombay Stock Exchange) and NSE (National Stock Exchange). The research will focus on the growth of Green Bonds within a span of 5 years and will provide suggestion for improvement in performance with the help of Fintech.

2.Literature Review

Some of the literature supporting the research of Green Bonds in India and abroad are explored. A study reveals that green bond trend in India is upward sloping showing great potential to grow but a certain challenges faced by them are hedge currency cost, lack of awareness and low sovereign rating.(Sourabh Bansal,2020).Another research reveal that the usage of green bonds in India is majorly concentrated towards energy sector however sector like bio-diversity,forestry,water conservation are not taken for consideration(Ms. Ashima Verma and Dr.Rachna Agarwal,2020).A research focus on policy promoting green bonds in Asia market. It reveals that green bond policy such as bond grant and tax incentives as well as cooperation and policy signals are effective in promoting the issuance of green bonds in private sector in Asia. (Azhgaliyeva and Kapsalyamova,2021).

Another research focuses on the improvement challenges faced by the green bond market, such as underdeveloped market and the risk of green washing and regulatory issues. It recommends the development of a national strategy on developing capital market for sustainability, institutional reform, and new area for expansion such as municipal bonds ,retail participation and non -resident Indian Population.(Sanjana Manaktala,2020).Another research explore the implication for developing economies in Asia and draws recommendation for policy makers ,who are interested in Fintech(Financial technology)and blockchain for achievement of Sustainable Development Goals through low-carbon and climate resilient investment.(Darius Nassiry,2018).

3. Research Objective

Objectives are created to specify the aims of the field under consideration. Here we will study the market of green bonds in India from 2015 to 2021.The main purpose of this research are:

    i.   To explore the growth of green bonds in India.

    ii.   To explore how Fintech can help improvement of this sector.

    iii.   To study the limitation and drawback of green bonds in India.

4. Research Methodology

The research design of this study is based on descriptive research. The data has been collected from various secondary sources such as websites, journals, various articles and published reports.

5. Data Analysis and Presentation

Data Analysis plays an important role for representation of the data. Here we have collected data from some sources to show the position of green bonds and sustainable finance in India. We have selected total 3 charts to represent the situation of renewable energy investment in India. They are as follows.

Source**: http://www.investindia.gov.in/sector/renewable-energy**
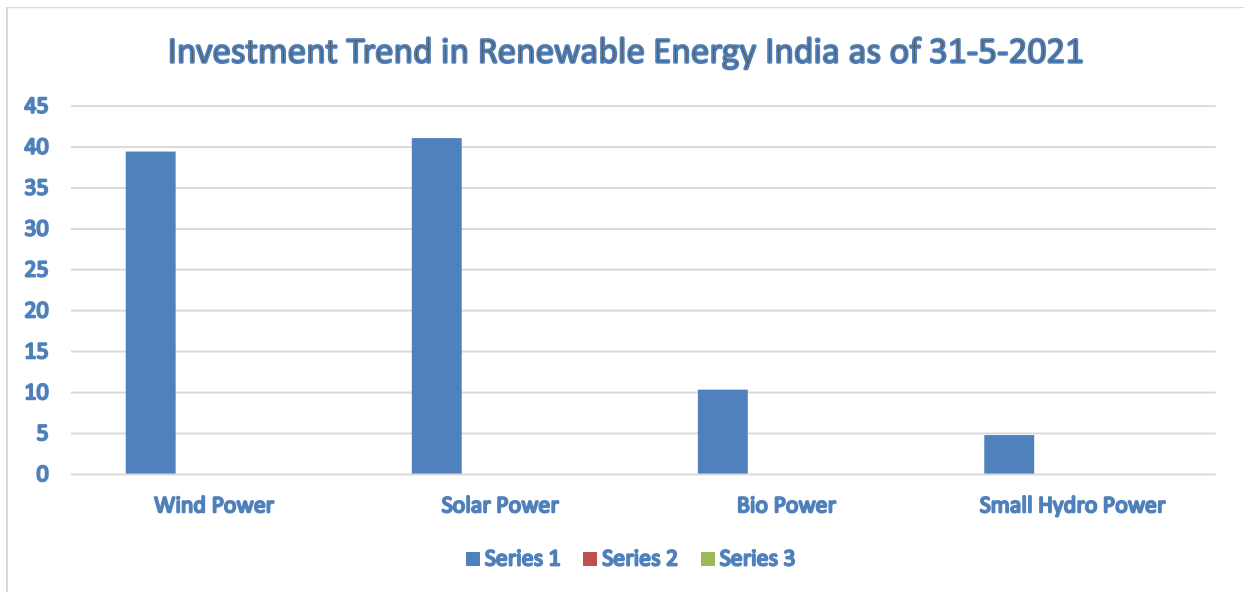
This diagram represents that gradually investment in renewable energy sector is growing. India now ranks 3rd in renewable energy country attractive index in 2021.India's solar power energy capacity has grown by over 15th times and it has a target to achieve a capacity of 175gw worth of renewable energy by the end of 2022

Sustainable Bond Issue

CY 2015 ■ CY 2016 ■ CY 2017 ■ CY 2018 ■ CY 2019 ■ CY 2020 ■ CY 2021
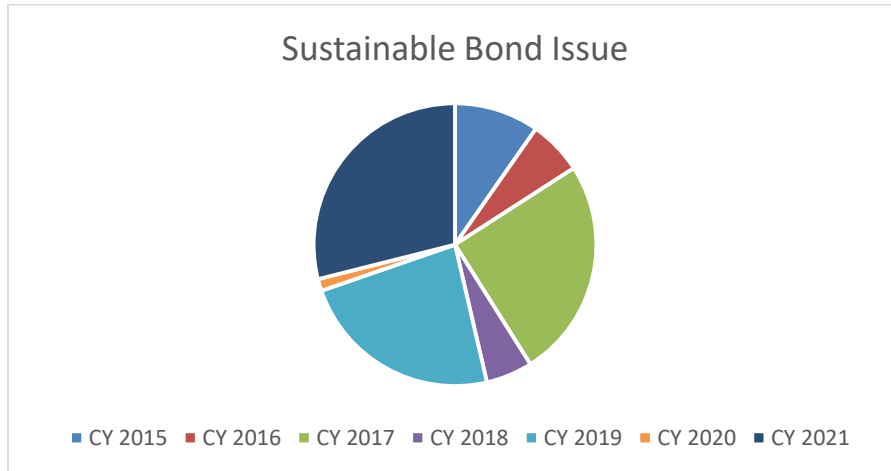
Source: Forbes India
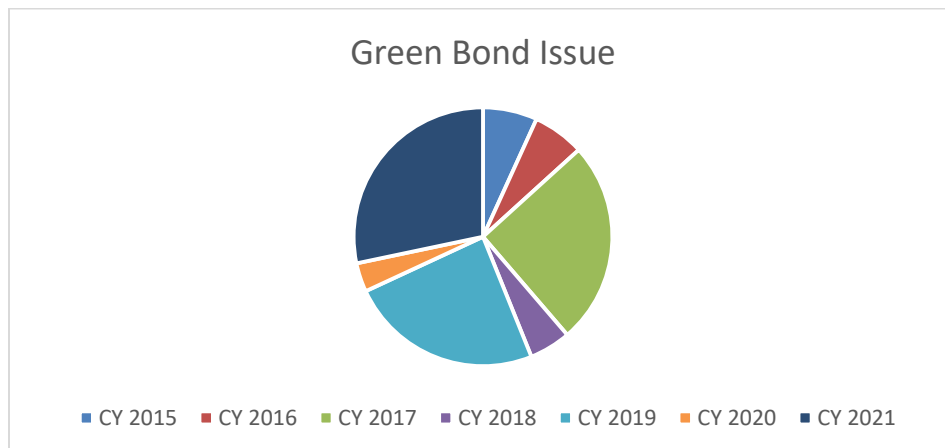
This diagram is depicting that India investment in sustainable bonds has grown over the years. However last year because of pandemic the investment was affected. Again, gradually the investment level has increased in this sector.

Green Bond Issue

CY 2015 ■ CY 2016 ■ CY 2017 ■ CY 2018 ■ CY 2019 ■ CY 2020 ■ CY 2021

Source: Forbes India

Similarly, like Sustainable Bond the investment in green bonds has also grown however pandemic had affected investment in last year. Still India is second largest market for green bonds after China.

6. Exploration of Fintech in Green Finance and Green Bonds

Fintech means application of technology expertise in the field of finance. FinTech can also play an essential role in the field of Green Bond market. Some of the important point we have mentioned here:

a. **Climate Data Collection**-Innovative methods should be implemented and application of artificial intelligence, big data, blockchain etc. will create opportunity to gather comprehensive climate data in cost-

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effective manner. This will create opportunity for Fintech Startup to explore new option.

c. Startup can create new dimension to explore and analyze such data. Big Data analysis can apply heat map tool to know the economic impact of climate related risk on local basis. Investor and lender will be able to make appropriate decision of capital allocation by application of heat map tool.

d. **Boosting demand of Green Finance using Technology-**Application of digital technology is not only limited to analysis but it can further develop and increase green financial product demand. Green Bonds can improve its efficiency and credibility by application of technology. "Block Chain Based Smart Contract "should be introduced in this segment to simplify issuing process along with saving time and cost. Application of blockchain will reduce the typical denomination of green bonds however in terms of cost there won't be much difference between USD10 and USD10 billion green bonds. Blockchain technology will ensure that the value transfer is secured and temper proof ensuring bonds credibility to clients.

e. **Innovative Green Asset Wallet in Green Bonds-**Another application of blockchain such as green asset wallet initiative will help in monitoring green bonds proceeds

b. **Analysis of Climate Related Data**-Collaboration between banks and Fintech

(Repinski 2017). This project is tailored to equip green investors with technology needed to deliver goals of Sustainable Development Goals and Paris Agreement. It is based on open-source technology designed for capital market investor. Green Asset Wallet will help to effectively utilize private institutional capital to green projects globally. Adoption of Green Asset Wallet Initiative will boost investor confidence in Green Bond market.

7. Limitations

Some of the issues and problem arise while conducting research in green bonds are as follows:

i. One of the biggest drawbacks in green bonds investment is hesitant of investor because of "green washing". It is basically a practice of utilizing green bonds funds towards project which hardly has any environmental benefit.

ii. In India though SEBI is regulating issuance of green bonds but there is not a separate governing body or rating agency for monitoring Green Bonds market.

iii. The Fintech application for development of Green Bonds and Sustainable Finance is in the innovation stage so there are high chances of risk and uncertainty.

Awareness of Green Bonds in India is still comparatively low as compared to the developed nation

8.Conclusion

Some of the conclusion which we have drawn from research are that India has a strong potential for green bond market as consumer are adapting to the new trend in investment there will be lot of transformation in the domestic market. However, one important factor to be consider here that consumer trust is maintain by utilizing the fund allocated for green bonds should only be utilized for renewable energy project. Also, effective implementation of fintech in this sector.

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FROM WASTE TO RESOURCES: SHIFTING PARADIGMS FOR BETTER INDIA

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Abstract

"Often when you think you're at the end of something, you're at the beginning of something else."

- Fred Rogers,

India faces a daunting challenge of rapidly expanding municipal, industrial and agricultural waste for a number of reasons — population growth, urbanization, and economic growth. The result is significant air pollution, soil and water, as well as safety issues and health impacts on both workers and residents nearby. Recycling and composting systems cannot keep pace with waste growth, although small start-up companies and non-governmental organizations are introducing new solutions from advanced waste management to improved training and support for waste collection communities. For India to achieve sustainable economic growth, poverty reduction, poverty eradication, human development, and environmental development, new transformational solutions are needed rather than further development. Current systems in India cannot cope with the huge amount of waste generated by urban sprawl, and this has an impact on the environment and public health. Challenges and obstacles are important, but so are the opportunities. The key is to move from relying on waste disposal facilities that do not provide environmental protection, to waste management

In last decade, many innovative startups have stepped in this area with creative and tech-enabled ideas to manage wastes, as well as convert them into valuable resources systems that maintain economically viable resources. This article highlights about companies that are using wealth as a resource and, in the process, saving the environment from devastation in India. The paper presents cases on five organizations that with their relentless zeal, incessant quench for conservation and willingness to walk the extra mile have broken all myths about their limitations that were supposed to be major roadblocks on their success expressways. *Waste management may be a huge problem in urban India, but these five startups and many such similar organizations are tapping the large opportunity waste holds and bettering our lives*

Keywords – sustainable, waste, resource, environment

Introduction

Environment is defined as the essence of all

forms and conditions as well as living and non-living things around an organism, which affects its life. Man, and nature are closely linked, in order to maintain the equality or equality of nature. With population growth and development, there is a sharp increase in pollution levels leading to environmental degradation. The main causes of environmental degradation and population growth are exploitation of natural resources, industrialization, urbanization, etc. Pollution of all sort like air, water, land along with solid waste and its disposal eventually degrade environment as well as human health. Waste is unwanted or useless materials. Waste includes all items that people no longer have any use for, which they either intend to get rid of or have already discarded. Additionally, waste is something people need to get rid of. Waste is produced throughout human activity, which ultimately degrades human life and accelerates environmental degradation to an alarming degree. Wastes according to Kimenju and Groote (2008) are discarded substantial products of human activities that are regarded as unwanted or useless. Wastes are substances or objects which are disposed or are intended to be disposed or are required to be disposed of by the provisions of national laws. In the early 18th century and beyond, decomposing materials were the principal component of waste, mainly containing firewood, wood, bones, carcasses, and vegetable waste. Disposal of such waste do not pose any sort of harm to the environment rather adds to the increase in fertility of the soil. With decrease in availability of land for the disposal of waste and increase in population, industrialization and urbanization disposal of waste has become a major problem. As people are moving toward cities and towns to accomplish their basic needs, they gather in relatively smaller regions for their livelihoods, thus leading to generation of huge amount of waste in smaller area (Shafiul and Mansoor, 2004).

According to the Press Information Bureau, India generates 62 million tonnes of waste (mixed waste containing both recyclable and non-recyclable waste) every year, with an average annual growth rate of 4% (PIB 2016). The waste produced can be divided into three main categories: Environmental (all types of perishable waste), dry (or recycled) waste and biomedical (or hygienic and hazardous waste).

India's financial capital, Mumbai, and the country's capital, Delhi, are two of the world's leading cities in terms of solid waste generated per day. According to Central Pollution Control Board (CPCB) estimates,

Mumbai and Delhi produce about 11,000 tons and 8,700 tons per day of solid waste respectively. The problem of waste is not limited to the big cities but is not addressed throughout India. According to the annual report of the Indian government Department of Housing and Urban Affairs, it is estimated that the total solid waste generation is about 150,000 tons per day and of that, about 90 percent (135,000 tons per day) are collected. In the collected river, 20 percent (27,000 tons per day) are processed and the remaining 80 percent goes to landfill sites. Across India, the existing systems for the collection, transportation and disposal of solid waste are fraught with chaos. The problem is especially acute in urban areas, where a rapidly growing population produces large amounts of solid waste that local urban bodies (ULBs) cannot effectively manage. Improper management of solid waste endangers the environment and public health.

Literature Review

In a common man's eye anything that is unwanted or not useful is garbage or waste. However scientifically speaking there is no waste as such in the world. Almost all the components of solid waste have some potential if it is converted or treated in a scientific manner. Hence, we can define solid waste as "Organic or inorganic waste materials produced out of household or commercial activities, that have lost their value in the eyes of the first owner but which may be of great value to somebody else." (Robinson, W.D.1986). Management of solid waste resulting from rapid urbanization has generated a lot of concern in most developing countries. Especially during the last decade the volume and complexity of solid waste generated particularly in large cities, have been increasing at an unprecedented rate. This increase has been attributed to two main drivers: intensification of urbanization and standards (Rathi, 2007). In her paper, "Municipal Solid Waste Management in India: A Critical Review," Prof. Sudha Goel suggests that regular monitoring and data collection are essential for designing an efficient Solid Waste Management System. To improve Solid Waste Management practices in the country, Prof Goel recommends establishing a centralised database on urban local bodies experiences in Solid Waste Management, and using modern tools and technology such as remote sensing, GIS and mathematics optimization

Objectives

1) To understand current situation of waste in India
2) To find out about companies that use waste as a resource

Case Study Approach
Case 1 – Craste

43

According to an official report, more than 500 million tons of crop residues are produced annually in the country. Cereal crops like rice, wheat, corn and millets make up 70% of the total crop residue. Pune-based Craste is a plant waste management company that creates high value food-grade packaging products with vegetable crop residues and in addition provides additional revenue to farmers. Craste buys agricultural waste from farmers for Rs 6 per kilogram and recycles it to make packaging materials and boards for furniture engineers. These particles are designed to contain no formaldehyde, a strong, colorless gas used in pressed wood products and harmful to human health.

Case 2 – Greenshift Energy

GreenShift Energy Pvt. Ltd. is jointly working with Institute of Chemical Technology (ICT), Indian Oil Campus, Bhubaneshwar for development of novel technologies in Waste to Wealth domain. They are also Industry Partners for Government of India (Department of Science and Technology) sponsored project in "Waste Management Technologies (WMT)", a technology development and transfer program. Founder Mr. Kunal Godambe is working in Waste to Energy technologies since 2010. They have worked in various projects involving Government corporations to provide them with end-to-end solutions and also consultancy in Waste to Energy vertical. Their major partnership includes that with Municipal Corporation of Greater Mumbai and Thane Municipal Corporations. In the past 2 years, they have also successfully developed machines for Plastic Waste recycling and UVC based Disinfection products. They believe that nothing is waste and everything is a resource

Case 3 – Wabag

It is sometimes said that water is the real liquid gold. Water technology company VA Tech Wabag would certainly agree. The Chennai-based company recycles waste water from industry and municipalities for reuse as drinking or farming water for industrial use. WABAG's water saga spans over ninety years, making it an industry leader today in the field of total water management. With presence in four continents, WABAG is a pure-play water technology multinational offering a wide range of solutions focused on conservation, optimization, recycling and reuse of resources, directed at addressing water challenges across the world. Their objective is to provide a growing number of people with access to clean drinking water, as well as to secure environmentally-compatible disposal of municipal and industrial

wastewater. They are committed to contributing in a sustainable manner to environmental protection and an enhanced quality of life. This task drives them in the development of new technologies and the ongoing optimization of existing processes with a focus on emerging markets.

The success of their efforts helps secure one of Earth's greatest treasures, the very basis of life — Water.

Case 4 –Hanjer Biotech Energies

Waste management company Hanjer Biotech Energies realized that waste in landfills can be recycled to generate energy when it started India's first green power plant at Jalgaon in Maharashtra using a solid waste byproduct such as fuel. The biomass power plant was closed due to the unavailability of husk rice, which is a facility generator, forcing Hanjer to dump waste from municipal waste to produce seven megawatts (MW) of green energy. The idea of converting waste into new energy, but Hanjer based in Mumbai plans to take it to a new level following the success of its testing in Jalgaon. It plans to take four to five closed power plants in Maharashtra, Madhya Pradesh and Rajasthan to produce about 40 MW of green power and establish a green power plant in Surat, Gujarat, which is fully operational from solid waste gas.

Case 5 – Cerebra

Bangalore infotech company, Cerebra Integrated Technologies, is doing everything in its power to reduce the risk of e-waste by some activists who say it could be the worst-case scenario in the world. Build India's largest e-waste recycling center that will be operational by the end of this year. The facility will be able to process almost 90,000 tons of e-waste. "We wanted to find a solution to dispose of the remaining e-waste after the completion and restructuring process, and we realized that there is one or two middle-class players in the business," said Gururaja Upadhya, founder and Director. -Technical at Cerebra Integrated Technologies.

But e-waste is also a treasure trove of precious metals and other metals. Cerebra sees big business in the e-waste mountains of Bangalore producing 200,000 tons of e-waste per year. The company plans to make its millions by extracting metals such as gold and platinum from the e-waste that accumulates in the city. The cell phone, for example, is made of a combination of rare earth and precious metals: it contains 250 mg of silver, 24 mg of gold and nine mg of palladium while the laptop contains 1,000 mg of silver, 220 mg of gold and 500 grams of copper.

Conclusion

Population growth and especially the development of big cities make solid waste management in India a major problem. The current situation is that India is relying on insufficient waste infrastructure, informal sector and waste disposal. There are serious problems associated with public participation in waste management and are often irresponsible for waste disposal in the community. There is a need to increase public awareness and change people's attitudes about waste, as this is important in developing appropriate and sustainable waste management systems. Sustainable and economical waste management should ensure maximum waste disposal of resources, including safe disposal of waste through the development of engineered waste disposal facilities and efficient waste disposal facilities. India faces challenges related to waste disposal policy, waste technology selection and the availability of properly trained people in the field of waste management. Rapid population growth in India has led to a decline in natural resources. Waste is a potential source and effective waste management by outsourcing is essential. Disposal of waste from waste can be materials, energy or nutrients, and this can provide many people with a livelihood. These initiatives, along with many small and large organizations, are helping urban India cope with the complex waste management problem. The problem level is huge. However, the stories of these organizations that have successfully turned the waste problem into an opportunity raises hopes. With so many new solutions and growing awareness among residents, we hope to see less waste disposed of in the future.

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CONSUMER PERCEPTION TOWARDS ELECTRIC VEHICLES IN INDIA

Aarti R Vyas

Assistant Professor

Abstract: The automobile sector is considering a solution to the industry and the environment in India the Government support is promoting the trends of EV in India. Through this paper the consumerperspective would be studied with the potential scope of EV in India

Keywords: Electronic Vehicle, Government policies, Consumer perspective

Introduction:

India is the country which has third largest road network with overall 60% of the population use personal or shared vehicle to commute.

The major cause of global warning and pollution is done by conventional vehicle all the dust released from tries brakes and road wear. The gasoline and diesel vehicle has more impact of polluting theenvironment as compared to the electric vehicle

The electric and hybrid vehicle are being promoted by the scheme known as FEMA India it aims to promote electronic mobility and provide financial incentives for enhancing EV production and creation of electronic transportation infrastructure

The NEMMP 2020 is a National Mission Document providing the vision and the roadmap for the fastest adoption of EVs and its manufacturing process. The plan is designed to boost the national fuelsecurity and to supply affordable and environmentally friendly transportation and to enable the Indian automotive industry to attain global manufacturing leadership

Literature Review

- **Electric Vehicles: A Synthesis of the Current Literature with a Focus on Economic and Environmental Viability: MarcelloContestabile, Dr Gregory Offer, Dr Robin North** A European Journal of Molecular & Clinical Medicine ISSN 2515-8260 Volume 7, Issue 8, 2020 4862The research concludes that the longer term uptake of EVs will depend heavily on progress in battery technology, to bring down costs and increase energydensity, and on the provision of a suitable recharging infrastructure. (Marcello Contestabile, 2012)

- **Electric Vehicles for India: Overview and Challenges: by Mr.A. Rakesh Kumar, Dr. Sanjeevikumar Padmanaban,**

Global pollution is on the rise and each effort made, is to cut back the CO2 emissions and save the earth. One such effort is the introduction of EVs. The transport sector is one in all the largest emitter of CO2 and hence it's important to reduce it. The government has come up with ambitious plans of introducing EVs to the Indian market and confine pace with the event of EVs globally.

- **The Electric Vehicle for India Overview and Challenges by Mr A. Rakesh Kumar Dr Sanjeevkumar Padmanaban** the National Electric Mobility Mission Plan 2020 has included an in-depth report on the EVs**.** India encompasses a huge challenge in shifting the transportation sector from ICE engines to EVs. This needs lots of planning along with R&D. Charging infrastructure must be adequately build to deal with range anxiety. It's vital to form demand generation by making all government buses electricand offering tax exemptions for personal

Objective

The objective of the study is to understand consumer perception andimportant factors for purchase of Electric Vehicle in India

Research Methodology
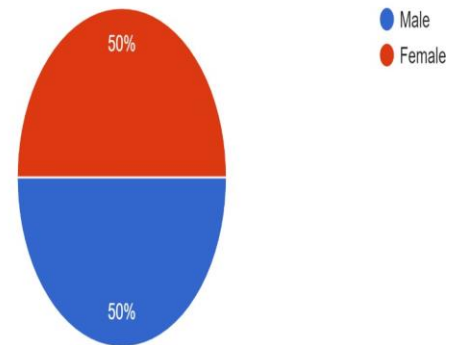
The Descriptive Research Methodology is used Primary data of a sample population of

66 respondent is collected using online questionnaire

Data Analysis

The sample size is 66 out of which 50% is male and 50% is female

Gender
66 responses

Under the sample group 36.4% fall under the age group of 31- 45 yearsand 40% of them fall under the age group of 18-30 years

Age
66 responses

49
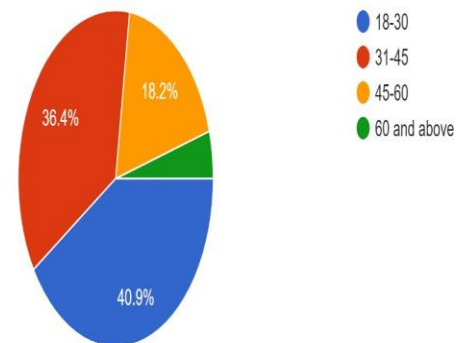
Income

Out of the sample size 54% of the people belong to the 5 to 10 lakhincome Group

Income

64 responses
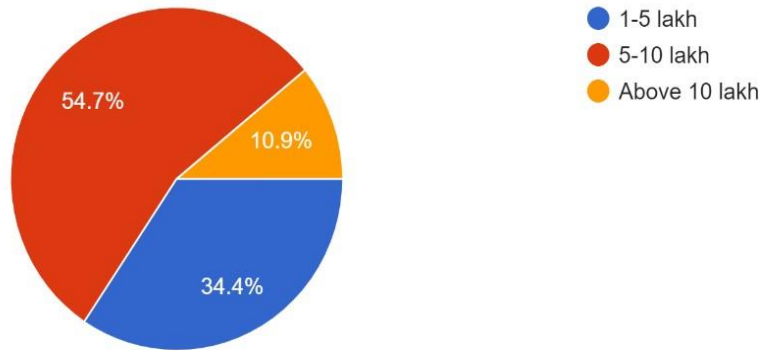
Occupation

The 46.2% of the individual being to the business category as theoccupation

Occupation

65 responses

If you want to buy a vehicle would you prefer to buy an Electric Vehicle
66 responses

- Yes
- No

9.1%
90.9%

Which type of vehicle would you prefer ?
66 responses

- Conventional Fuel Vehicle
- CNG Vehicle
- Hybrids
- Electric Vehicle

50%
7.6%
40.9%
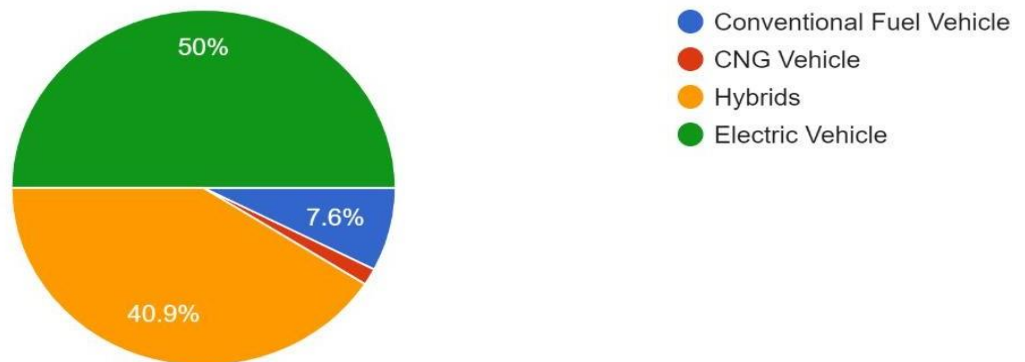
What would be your reason for selecting an Electric Vehicle ?

66 responses

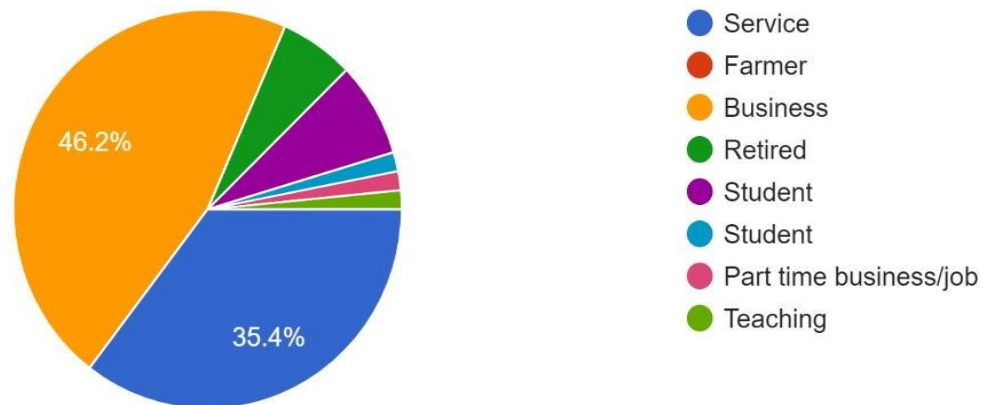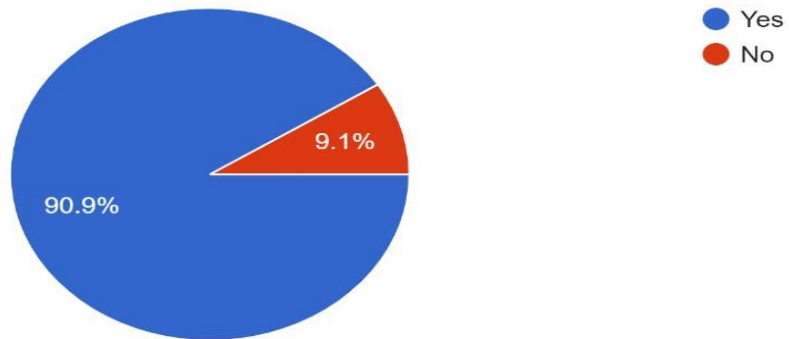| Category	Value
Reduce Less Carbon Emission	54 (81.8%)
Price of Petrol and Deiseal	57 (86.4%)
Subsidy from the Government	44 (66.7%)
Easy to drive	44 (66.7%)
Customization of the product	33 (50%)
Low maintenance cost	45 (68.2%)
Environment Friendly	50 (75.8%)
Electricity is cheap than fuel	1 (1.5%)
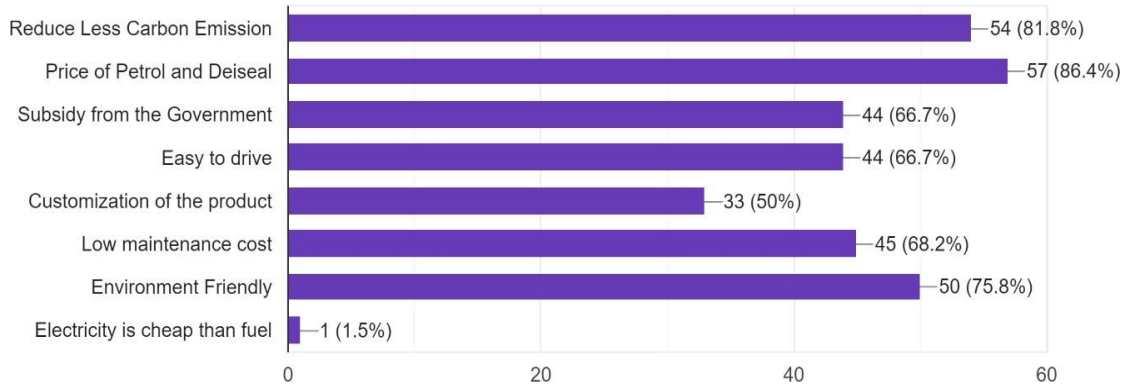
What would be your reason for not selecting an Electric Vehicle ?

66 responses

Category	Value
Safety Measures	36 (54.5%)
Non Availability of Charging Station	55 (83.3%)
Non Availability of Service Station	46 (69.7%)
Non Availability of Spare Parts	42 (63.6%)
Price Range Unaffordable	43 (65.2%)
Effects of Climate Change	22 (33.3%)
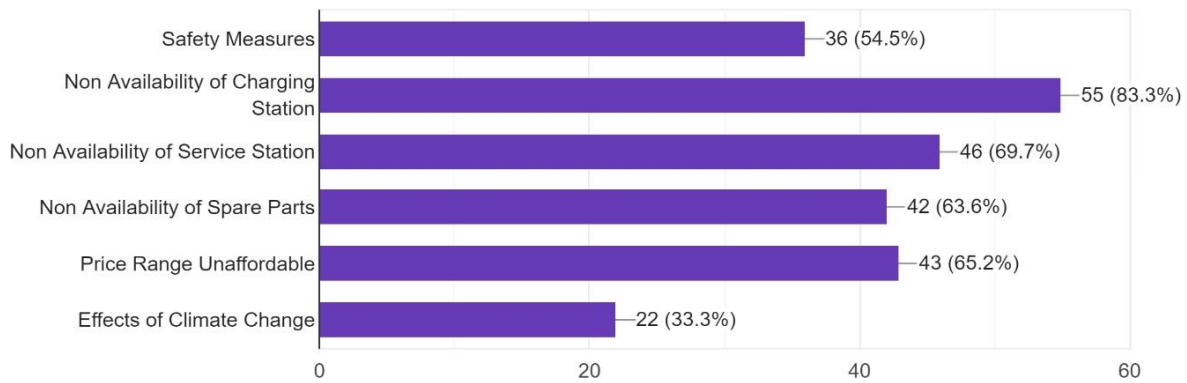
What is your Current running cost on Conventional Vehicle

66 responses

- 0-2 thousand — 12.1%
- 2--5 thousand — 47%
- 5-8 thousand — 31.8%
- 8-12 thousand
- more than 12 thousand

52
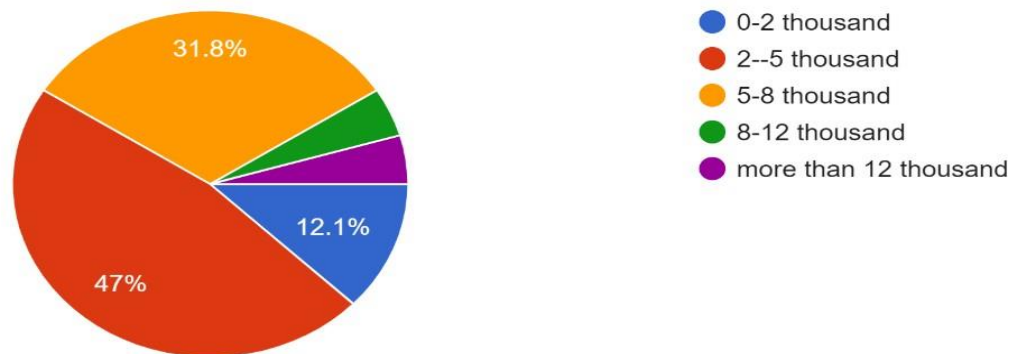
What is your minimum expectation on running cost behind the Electric Vehicle

66 responses

- 0-2 thousand
- 2-5 thousand
- '5-8 thousand
- 8-12 thousand
- more than 12 thousand
- other

50%
10.6%
36.4%
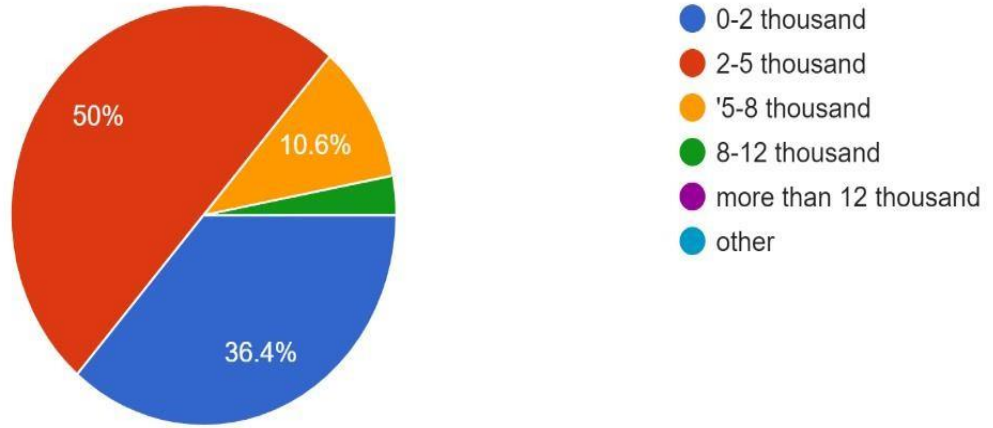
What is your minimum saving expectation behind Electric Vehicle

66 responses

- 0-2 years
- 2-5 years
- 5-10 years

69.7%
12.1%
18.2%
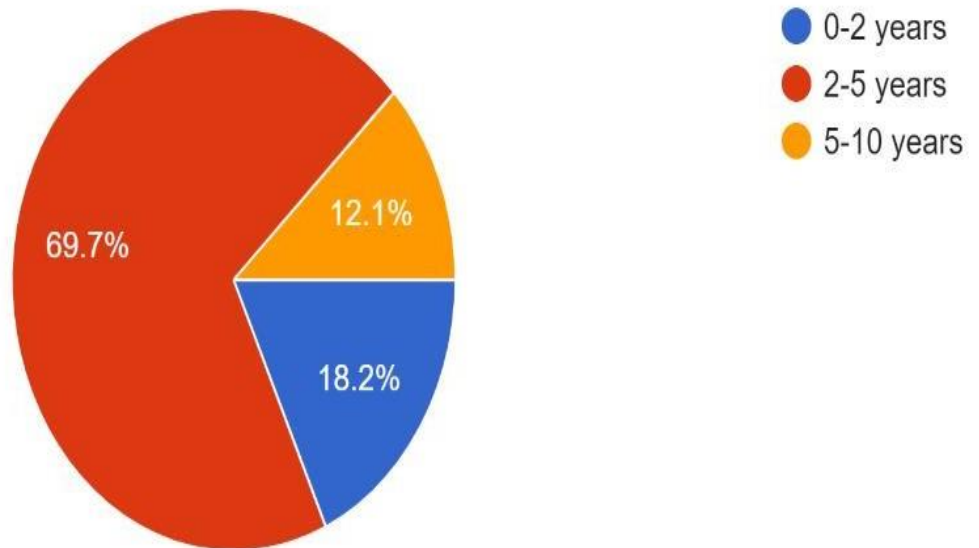
Hypothesis

H0 The significant relationship exists between customer preference on buying electric vehicles

Conclusion

With the increasing the pollution levels and hike in the fuel prices there is the need for energy transition in vehicles in India. Government initiatives are taken to promote Electric Vehicle and by giving subsidies to boost its purchase and production.

The respondence are aware about the Global pollution levels and are ready to change their preference on purchasing vehicles and opt for Electric Vehicle. Respondence are ready to purchase EV if proper charging station and infrastructure is being provided to them

Scope

The study has focussed on both primary and secondary data of electric vehicle survey in India. Though the research found a potential scope of Electric Vehicle in India still there can be a scope of in-depth study with greater number of samples more factors

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THE SUSTAINABILITY OF THE IDEA OF SUSTAINABILITY

Shawn Langford, Asst. Professor,

Abstract

Over the years, the conversation about sustainability and sustainable development has seen a marked increase. With several For – Profit and Not – For – Profit organizations opting for more "green practices" or green business models, the Sustainable Development has now become a USP of such organizations, which helps in their branding, public relations and goodwill. However, with the rise in sustainable development "trend", there exist stutters in the form of human activity and politics that deter any progress towards an actual and achievable universal goal. This paper highlights the harsh reality that co – exists with the dream of sustainability, and emphasizes the role of humans in the degradation of the environment while prioritizing political standings over the survival of the humankind.

Key Words: *Sustainable Development, Sustainability, Circular Economy, COP26, Environment, United Nations*

1. Introduction

At its core, sustainability is a concept which ensures that the current generation utilizes resources efficiently in such a way that future generations still have resources to use without endangering any component of the environment. From a business perspective, sustainability has become a Unique Selling Point (USP) of several organizations and has spawned off eco-entrepreneurs or "ecopreneurs" who focus on "Green Business" models since the 1990s. However, one must question the sustainability of the idea of Sustainability, if even after several decades of "discussing" about sustainability, we are on the verge of a complete environmental collapse due to climate change, a condition brought about by extensive abuse of the environment (McGrath, 2021).

2. Sustainable Development

The first World Conference to focus on the environment was held in 1972 at the United Nations Conference on Environment in Stockholm, leading to the Stockholm Declaration and Action Plan for the Human Environment, among other resolutions (United Nations, n.d.). The Declaration helped initiate the

dialogue between industrialized and developing countries about the connection between the pollution of the environment (air, water, and oceans), economic growth and the well being of the human race. Although it wasn't said outright, this was the first step toward what we now know as "Sustainable Development". The United Nations Conference on Environment and Development held in Rio de Janeiro in 1992 marked the first instance where plans and strategies for a more sustainable form of development was discussed (*History of SD*, n.d.). The concern of the degradation of the environment that was voiced in the 1987 report by the Brundtland Commission could supposedly be resolved by Sustainability, a term that was now popularized in the report. It must be taken into consideration, however, that the concerns that were voiced were mere echoes of the past decades that included:

a. Rachel Carson's 'Silent Spring', 1962, that described how the pesticide DDT caused cancer and genetic damage by entering into the food chain and accumulating in the fatty tissues of animals and humans

(Carson, n.d.; *The Story of Silent Spring*, n.d.).

b. Garret Hardin's 'Tragedy of the Commons', 1968, that used the analogy of ranchers grazing their livestock on a common field to highlight the potential tragedy of untethered competition and overconsumption of resources for the sake of market superiority leading to the paucity and eventually extinction of resources (Britannica, n.d.; Hardin, 1968).

c. Edward Goldsmith's 'Blueprint for Survival', 1972, which reiterated the importance of the need of a radical change due to the increase in the number of humans as well as the per capita consumption, which risked the survival of the human race by disrupting ecosystems and quickly depleting resources (Goldsmith et al., 1972).

d. Meadows' report titled 'Limits to Growth', 1972, in which the Meadows' built a computer model named World3 that predicted an "overshoot and collapse" scenario (called a "business – as – usual" scenario) before 2070, if humanity did not take serious action on

environmental and resource issues (Meadows et al., 1972; Turner & Alexander, 2014).

This itself goes to show that despite being officially highlighted as early as 1972, it wasn't until almost 20 years later that, plans and strategies were actually discussed for sustainable development, and 23 years later, in 1995, that the first climate talks were held under the banner of Conference of Parties (COP) in Berlin, Germany (*Conference of the Parties (COP) | UNFCCC*, n.d.) .

3. Sustainable Development Inaction in Action

1974 saw the spike in demand (an increase of over 2.1 million barrels per day) and imports (nearly double the consumption) of oil in the United States of America (Council on Foreign Relations, n.d.-b) . It was around the same time (1964 – 1990) that the world saw terrifying ecological disasters like the Amazon Degradation in Ecuador and Peru, Papua New Guinea's Panguna Mine War, Italy's Seveso Dioxin Cloud, and France's Amoco Cadiz Tanker Spill that spilt an estimated two million barrels of oil, polluting almost 300 kms of the French Coastline and harming the wildlife in the area (Council on Foreign

Relations, n.d.-a). Not counting other major summits, a total of 26 Conference of the Parties (COP) have been held (as of November 2021), each with new proposals and protocols (Kyoto Protocol, Bali Action Plan, Copenhagen Accord, Cancun Agreements and most notably, the Paris Agreements) accompanying its own political drama and environmental disappointments (Council on Foreign Relations, n.d.-c). With regard to India, the country, along with China, was responsible for one third of the greenhouse gas emissions in 2019. In the COP26 held in 2021, it was reported that India missed the deadline to cut the emissions, a target that was set in the Kyoto Protocol of 2005 (Council on Foreign Relations, n.d.-c).

As of 2019, India stands third, following US, in CO_2 emissions with 2,616MT – 1.9 per capita (Laud, 2021), with China taking the lead at a whopping 10,175MT – 7.1 per capita (Laud, 2021). While there was an overall decline in the consumption of fossil fuels between the years of 1960 to 2015, countries like Japan, Mexico, Turkey, Israel, China, Saudi Arabia and India showed an increase in the consumption, with India and China showing a stark and steep increase

(World Bank, n.d.).

As far as global air pollution is concerned, pollutants like Nitrogen Dioxide, Sulphur Dioxide and Lead have seen a marked decrease (Thompson, n.d.). This, however, has not deterred Greenhouse gases like Carbon Dioxide, which has seen an increase of concentration from approximately 325ppm in 1970 to close to 410ppm, which in turn has led to the increase of the average global temperature (Thompson, n.d.). When discussing about air pollution, one cannot neglect to mention the cases of wildfires in California, Australia and the Amazon in Brazil. Though mentioned earlier as an analogy, we witness an example come to life, as unsustainable cattle ranching has contributed to 80% of the current deforestation which in turn is responsible for the release of 340MT of carbon to the atmosphere every year (equivalent to 3.4% of current global emissions) (*Unsustainable Cattle Ranching*, n.d.). A research conducted that took into account the wildfires of the US between 1992 and 2012, revealed that human – started wildfire dominated (84%) the cause of wildfires over those caused by lightning. During this span approximately 44% of

the total land area was burned (Balch et al., 2017).

The underground water table has been a major, if not primary, source of irrigation in the rural parts of India. Depending on the soil type and area, the utilization of the water table varies, thus making it difficult to have a "one size fits all" type of water management strategy. Due to the varied usage and demand, the stages of the water table are critical in most parts of the country, leading to drought and the need to channel water from neighboring areas (Jha et al., n.d.).

It doesn't help those powerful nations such as US, China and Russia play "chicken" with an impending environmental disaster by backing out of SDGs based agreements and Environmental summits. Whether it be political power plays or the gross arrogance to not face the consequences of their poor governance and by extension the abysmal and deadly contributions to environmental degradation by the respective nations, such acts only facilitate environmental issues further.

4. The "Ecopreneurs"

The term "ecopreneur" is the amalgamation of the words 'eco' (as in ecology) and entrepreneur. With this

regard, an ecopreneur ship is an enterprise that combines business with an impact on the environment or climate. The years of 2015 and 2016 saw a surge of ecopreneurs in Germany of approximately 36,000 start – ups. Of these, 40% focused on energy efficient products and services while 17% focused on the circular economy and sustainable food and agriculture (*Green Economy Start-up Monitor 2017*, n.d.). However, globally, almost all ecopreneurs face the same issues (Jungblut & Stadelhofer, 2019):

a. Financial (capital for investments)
b. Bureaucracy
c. Non – renewable resources dominated Hyper competitive market
d. Unsustainable business models
e. Government Policies
f. Lack of proper marketing or existence of "bad press"
g. Poor education of the masses

Each of the above-mentioned issues contribute to a larger concern, which is the survival of ecopreneurs in a hyper competitive environment that are already dominated by giants. Tech firms on the other hand find it relatively easier to transition into a green business model, when compared to an industry like the coal industry. Many blue collared and wage-based jobs are dependent on the fossil fuel powered industries, which makes it difficult for such workers/laborers to transition into a green business model.

The major issue that is being faced by most developing nations is the fact that the technology does not yet allow them to transition into a green business model. This will affect the deadline/targets set during the COP26, held in November 2021. It must be noted that the top 73 companies recognized by Fortune, have invested and are utilizing Solar and Wind energy to generate power/electricity (US EPA, 2016) .

5. <u>**On the Brighter Side of the Bleak**</u>

The lockdown restrictions during the COVID – 19 pandemics has turned out to be a blessing in an ugly disguise for several nations, as many industries had to put a hold on production and manufacturing. Due to the logistical restrictions, several companies have had to switch to a digital platform, thus reducing travel (in turn reducing the carbon footprint), reducing the use of paper (reducing the cutting down of trees)

and several such measures. Such actions would help in countries reducing their carbon emissions and possibly improve the environment.

6. Conclusion & Recommendation

Sustainability is a continuous process of improvement with an executioner's guillotine hanging over the planet's neck by the breadth of a thread. It cannot be attained if political agendas take priority over the very survival of the human race. It is the author's opinion that the idea of sustainability can only be effectively sustained if businesses and governments work hand – in – hand. Through existing corporate social responsibility norms, businesses can train, educate and upskill blue collared laborers to efficiently transition into green energy-based industries. Countries with higher greenhouse gas emissions need to take radical actions to curb these emissions.

One recommendation would be to fund research in developing green tech to enable manufacturing industries to reduce carbon and other gas emissions. Another possible step could be to incentivize private industries to transition into green energy by advocating policies that allow the use of alternative (green) renewable sources of energy. Considering the fact that bureaucracy, corruption and politics work in tandem, it is necessary to have stringent policies in place to ensure that political campaigns, large scale private business and infrastructure do not hamper ecological growth, in favor of lining their own pockets. The author understands that sustainability cannot be achieved in a day let alone a year. However, considering the evidence, it can be said that, the least that we can do is not make things worse than it already is at the moment

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WASTE MANAGEMENT FOR BETTER FUTURE

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Abstract

The purpose of writing this paper is to analyze the modern methods linked to the different waste management initiatives used in Mumbai for human wellbeing. The other objective is to give some recommendations and guidance to enhance the waste management modes in Mumbai. This paper is based on secondary research. Existing articles associated to waste management and recommendations of planners/NGOs/consultants/government accountability agencies for improving the system are considered. It allows a deep understanding of the various waste management initiatives in Mumbai and finds out the scope for development in the management of waste for the well-being of society. We are focusing specifically on household waste.

Keywords - Mumbai, Recycling, waste-disposal, waste management, Household waste

Introduction

Nowadays, people are becoming more concerned about how they are going to dispose of waste from their homes and premises. It has been observed that waste management practices are poor in Mumbai which has been resulted in adverse health and environmental issues. The city of Mumbai is divided into two parts- Greater Mumbai and the region surrounding it. The entire region- called the Mumbai Metropolitan Region (MMR) is administered by a group of Municipal Corporations. Different municipal corporations in MMR are Municipal Corporation of Greater Mumbai (MCGM), Thane Municipal Corporation (TMC), Navi Mumbai Municipal Corporation, Ulhas Nagar Municipal Corporation, Kalyan - Dombivili Municipal Corporation, Bhiwandi-Nizampur Municipal Corporation, and Vasai-Virar Municipal Corporation. All municipal corporations look after the primary hygiene amenities given to the citizens under the 74th Constitutional Amendment that provides municipal corporations these powers. This paper looks at examples from MCGM and TMC. The city communicates with all its stakeholders to handle the waste effectively. The nexus between the government agencies, technology, recyclers, citizens/residents, waste pickers form a circle for efficient waste management of the city in

a centralized and/or decentralized manner. Centralized mechanisms have been identified to fail at scale, mainly because of the complexity that this linear practice poses. From door-to-door collecting to small dumping of waste in over-flooded landfills gives very little space for efficient management of various waste. In simpler terms, the linear system of waste dumping highlights that waste is in fact, mismanaged. This system is also largely described by tenders floated for collection and the increasing price spent on transport. MCGM budgets INR 2000 Cr. for waste management in the year 2020-2021.

Literature Review

Municipal solid waste management is one of the major problems in India and especially in urban areas. Due to rapid industrialization and intense population growth, more and more people migrate from villages to cities. These growing cities generate large amounts of MSW daily and the amount keeps increasing. Municipal Household Waste Management in Mumbai is one of the major problems, residents of Joshi Lane in Ghatkopar area, a north-eastern suburb of Mumbai; to solve the issue of waste management plaguing their neighborhood. Waste collection in the locality was irregular, which led to accumulation of waste in the streets and unsanitary conditions; hence residents approached the local ward office of MCGM with their complaints. A series of meetings were held between MCGM officials and representatives of housing societies in Joshi Lane, which provided a forum for interaction and an opportunity to understand mutual problems and constraints. Residents were informed of the 'restrictive staffing policy' of MCGM adopted in 1995, being the main reason for shortage of cleaners/sweepers. Local residents also realized the importance of people's awareness and participation in maintaining cleanliness of the locality. Residents volunteered to segregate waste at the household level and devised a method to implement the concept of three 'R's i.e., Reduce-Reuse-Recycle within their locality. Residents voluntarily formed a 'Street Committee' with residents from housing societies in Joshi Lane as members. Members of the Street Committee thereafter approached MCGM for partnering in SWM. MCGM officials at the ward level made an informal arrangement for Joshi Lane, where it was agreed that MCGM would be responsible for street cleaning at regular intervals, door to door garbage collection and disposal; while the Street Committee had the primary function of spreading awareness about waste, segregation at source,

monitoring timely collection and vigilance of the neighborhood to prevent littering. Soon, news about this initiative and its success in improving the cleanliness of the neighborhood spread to the nearby neighborhoods, and residents in these areas started adopting similar practices voluntarily. After six Street Committees were formed in Ghatkopar area, the partnership between MCGM and local residents was formally launched by the Additional Municipal Commissioner, MCGM with the name of "Advanced Locality Management" Programme in 1997 and adopted for the whole city, based on a voluntary action by the citizens

Research Methodology

A working definition of MSW is wastes generated by households, and wastes of a related nature caused by commercial and industrial premises, by institutions such as schools, hospitals, care homes, and from public spaces such as streets, markets, slaughterhouses, public toilets, bus stops, parks, and gardens. This includes several commercial and business wastes, excluding simply industrial processes and hazardous waste. Management of MSW consists of several important steps, mainly separation and storage of waste at source, primary collection, street sweeping, secondary storage, transportation, treatment, recycling, and final disposal of waste.The current BMC system in the state of Maharashtra is acknowledged to be highly improper and inefficient. The rapidly increasing amounts of household waste being produced in Mumbai in combination with poor management planning and insufficient financial resources, makes today's situation a severe problem The generation of household waste in Mumbai is very high comparing to other metropolitan cities in India as well as in Maharashtra. The city alone generates about 4760 metric tons. The waste collection in Mumbai is managed through a combination of community bins and door-to-door collection There are no separate compartments for segregation, and the bins are in many cases not optimally located or maintained, resulting in poor collection efficiency In Mumbai, the BMC tends to be strewn around and householders tend to throw their waste into the roadside gutters for later clearance by street sweeping crews, even in areas where storage arrangements are located. This is due to both lack of discipline and inadequate placements of the storage arrangements.

Currently, almost no segregation of the waste is being done in Mumbai since there are generally no separate bins exclusively for

collection of different materials. The separation carried out is almost exclusively done by the informal sector. Materials like paper, plastics, metal and glass are being segregated by rag pickers and thereafter sold to different industries for reuse and recycling. By the time the remaining waste after the rag pickers' procedures reaches the collecting bins, it therefore contains very little recyclable material and consists mainly of fractions like organic matter, remnants of soiled paper and medical waste. After the household waste has been collected, it should be transported to a processing or disposal site. In most Indian cities, the transportation of household waste is carried out by vehicles of different sizes. The BMC operates a fleet of in total 983 municipal and private vehicles of different kinds for this purpose. In Mumbai, transfer stations are being used. A transfer station is a centralized facility where waste is transferred from smaller vehicles to larger ones in order to facilitate the transportation to landfills or dumpsites, since landfills and dumpsites often are located at some distance from the collection sites. There are in total three transfer stations at Mahalaxmi, Kurla and Versova that support transfer of waste from surrounding areas to the landfills. Presently there are three major landfills in Mumbai. The two dumping sites Deonar and Mulund, and the scientific landfill Gorai. BMC is responsible for operating the landfills and has emphasized on implementing a PPP framework for the landfill maintenance. Deonar is the largest and oldest dumping ground in Mumbai. It has an area of about 132 Ha and is operating since 1927. The site receives 2000 Metric Tons of Household waste daily that is being dumped without any treatment. Deonar dumping ground is bordering the Thane creek in three directions, and a slum in the fourth direction. Mulund is a smaller landfill located in the eastern suburbs of Mumbai. The dumping site has a total area of 25 Ha along the Thane creek and is operating since 1968. The site receives around 600 tons of Household waste per day. Kanjur is the newest landfill in Mumbai, with a developed bioreactor landfill facility. It is also located along the Thane creek and has an area of 141 Ha. The site was handed over to the BMC in 2003 and is operating since 2015. Composting is mainly being used on a small scale, at local level. India's first large-scale composting plant was set up 1992 in Mumbai by Excel Industries Ltd. The facility has the capacity to handle 500 tons of Household per day, however the utilized capacity was by the year of 2007 reported to be 300 tons per day due to certain issues.

Findings & Conclusion

The overall outcome is that it is not enough that a small part of the society, with partially contradictory interests, is taking initiatives to improve the BMC in Mumbai. To achieve a sustainable long-term solution, coordination and a more holistic system approach are necessary. The BMC system can be seen as a typical case of a sociotechnical system. Changes in such systems involve several actions in different areas (e.g., social, technical, financial, institutional) and on different levels in society. The current challenges regarding the BMC in Mumbai cannot be solved solely through technical means. To support the technical solutions, it is important to view the technical systems as a part of a bigger sociotechnical system and combine them with organizational and political solutions as well. Hence, support from and interactions between different stakeholders and actors is necessary to develop support for policies.

To be long-term sustainable, there is a need for a broader system view, putting urban planning into the context of global resource management. The concept of household waste management should not be limited to only handling current obstacles related to treatment and disposal, rather, it should be extended to solve resource management issues related to unsustainable production and consumption patterns.

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WORK FROM HOME: A STEP TOWARDS SUSTAINABLE FUTURE

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ABSTRACT

Working from home is not new. Before the Industrial Revolution, most people worked from home in agriculture or as skilled artisans or running a household. Work from home is an opportunity offered to employees in which he/she can work from home, very often doing some simple tasks in a minimal amount of time with a large amount of income. The research is conducted to understand people's attitude towards working from home or the online mode which can be a step towards a sustainable future. The data is based on various factors like user experience, feedbacks, and personal liking about any platform. Using individual-level data on tasks and work conditions, we show that heterogeneity in work from home feasibility is largely explained by differences in task content.

KEYWORDS - Work from home, Online mode, Sustainability, Covid-19.

INTRODUCTION

In January 2020, the World Health Organization (WHO) declared the outbreak of Novel Coronavirus Disease, COVID-19, to be a public health emergency of international concern. Currently, in several countries globally, this pandemic continues to enforce the temporary closure of all nonessential shops and services except from essential shops and pharmacies. Workers all around the globe are at a high risk of getting infected and are asked to work from home, as cities have been placed under lockdown. Even curfews to decrease the spread of the virus have been imposed in several countries. Companies are facing various challenges regarding health and safety, supply chain, labor force, cash flow, consumer demand and marketing.

Since the start of the Covid - 19 pandemic and the associated containment measures, work from home has experienced an unexpected boom. Rapid spread of pandemic and lockdown made it necessary for companies to switch to work from home within overnight. The whole globe was working from home through various online platforms.

Prior to COVID-19, the corporate world was

highly focused on increasing environmental problems and social issues that many believe arose from controversial economic policies and the global trade. Sustainability is a term and concept used to bring balance and create responsibility for environment economic activity and development. The three goals of sustainability are economic development, social development and environmental protections-thave ever since served as the foundation to several standards and certifications in sustainability.

For individual workers, working from home is not just a safety measure, but also brings along additional benefits like zero commuting, pollution free lifestyle and enhanced flexibility.

Even the economies around the world are adapting to the new normal and lockdowns are being made easy, employee's mindset to return to the workplace remains very low, and it is now anticipated that some jobs may permanently move out of office to homes.

At the same time, some individuals may feel that working from home to be tough due to long working hours, the inability to rescue oneself from official calls during odd hours and increasing family pressure and managing household chores. Yet, with the pros overcoming the cons, we see this model eventually shaping the future workplace.

SUSTAINABILITY IMPACT OF COVID-19 ON Work From Home

The pandemic we are facing has not only affected the physical health of millions of people but also their work. This Covid-19 pandemic has a great contribution towards sustainable future. Along with Covid-19 Pandemic, Lockdown and Work from Home are also main contributors for sustainable future.

Zero commute, no office energy consumption - working from home seems the most sustainable solution. Car engines running, office air conditioners, electricity, paper consumption on a large-scale has a huge impact on polluting the environment. Shouldn't workers avoid going to offices and work from home? The answer to creating a more sustainable future of work is not quite that simple. It may seem intuitive to believe that working from home is universally better for the environment year-round. Sustainability, after all, relies on a reduction in emissions, much of which come from petrol-powered engines in cars and the massive amount of energy consumed by large buildings. Working remotely would seem to solve many of these problems: zero commute, and fewer seats to heat and cool in offices.

Employers shifting to a remote workforce

and enabling their employees to work from home is resulting in very positive effects on business, their employees' lives and the planet. With people having the flexibility to work from home, companies open up the opportunity for employees to save money and time, for business operations to reduce their expenses and overhead, and for the business world to lower their carbon footprint and make progress on more sustainable business models.

LITERATURE REVIEW

INTRODUCTION

A new mode of working was introduced because of the Covid-19 pandemic which turned the whole world upside down and people were compelled to Work from Home. It is now observed that this new mode of working virtually is turning out to be a new normal. There are many thoughts and opinion of the people regarding the work from home and some believe that this is going to be the future of working style.

MORE DEMAND OF WORK FROM HOME HAS BEEN SEEN

Karin Kimbrough (2020) Chief Economist, LinkedIn said that he and his team have observed huge increase in demand for remote work on their LinkedIn platform, one that will have a significant long-term impact on the labour market.

Globally, they're seeing four times the number of jobs that offer remote work since March. The volume of job searches using the "Remote" filter on LinkedIn has increased ~60% since the beginning of March 2020, and the share of Remote Job Applications has increased nearly 2.5 times globally from March.

WORK FROM HOME: A NEW OBSTACLE FOR FEMALE EMPLOYEES

As it was firstly expected that work from home will provide an ease in working specially for women employees and it will increase their participations as well but a negative correlation has been observed. Although the participation of female employees has increased since the covid-19 pandemic but it is more tough for a female employee to focus on their work as they have to spend more time in household chores. They face more distraction than men and this new normal made their work more difficult. In an article (Lyonette & Crompton in 2015) said "Women continue to shoulder a majority of housework and childcare responsibilities despite increased female participation in full-time paid employment."

There is an increase in the participation of women but despite the increased participation there is a major downfall in the

job positions women are opting for. The research highlights that gender inequality at home still exists as women try to juggle full-time employment with household duties such as the school run and childcaring. In order to meet these domestic/home obligations, and reduce the tension between home and work responsibilities, many women either move into less demanding jobs or scale down to part-time/reduced hours work (Connolly & Gregory, 2008).

RISK OF INCOME INEQUALITY DUE TO WORK FROM HOME

Several studies have been made to understand the impact of work from home since pre-covid situation but this topic is still under debatable. Theoretical studies and previous literature show a potence of inequality in the income of the employees due to some factors associated with the Work from Home.

According to (Dutcher and Saral 2012), lower wage levels may be due to a lower productivity of employees performing their occupation from home. There are several distractions while working from home which directly affects the productivity as well as quality of the work.

STUDY OF LITERATURE 2010

'Comparing Telework Locations and Traditional Work Arrangements: Differences in Work-Life Balance Support, Job Satisfaction, and Inclusion' an article in Journal of Managerial Psychology, on August 2010, Morganson V wrote that the employees working from the home were more satisfied but those who have to deal regularly with the clients were less satisfied. She suggested that managers can setup regular meetings with distant workers and keep them up to date on current issues and involve them in decisions. The study was only focused on main office and home-based workers.

2012

Bloom N, Liang J, Roberts J and Ying conducted a study on 'Does Working from Home Work?' in December 2012. They found out that the frequency of working from home is increasing rapidly in U.S and European countries. They also found that there was a 13% increase in the performance from home-working, of which 9% was from working more minutes of their shift period (fewer breaks and sick days) and 4% from higher performance per minute. When their experiment ended and employees were asked to choose between working from home and working from office, most of the employees choose working from home over the working from the office.

2014

Bloom N in January 2014 studied on 'To

Raise Productivity, Let More Employees Work from Home' in which he found that the younger workers whose social lives are more connected to the office, more often do not like to work from home while the older employees like more to work from the home. Some of the people opted out from the work from home option because of the lack of discipline. Some employees are more productive in office than in working from the home. But still there were majority of home workers who were more felt more satisfaction. The productivity of home-based workers was also more than those who worked in the office.

2016

Bechmann M and Rupietta K in July 2016 published a research paper on 'Working from Home: What is the Effect on the employees', where it was firstly thought that the Work from Home has a negative impact on the productivity of the work but actually data suggested the opposite results. It was found that the people working from home delivered work on the time and were more productive as well. It became a beneficial strategy for the firms. Although it turned out to be a productive decision but working from home suggested its own drawbacks which included dissatisfactory among the employees and lack of social interaction. The research was limited to a sample size and work from home

was not mandatory for the employees.

2018

Delanoeije J and Verbruggen published a research paper on the Use of Work-Home Practices and Work-Home Conflict: Examining the Role of Volition and Perceived Pressure in a Multi-Method Study where they found that perceived pressure from the work environment and volition for use or non-use of telework and part-time work made a great variance in the study and they showed how these two factors affected the productivity of the work, whether it is work from home pr work from office.

2019

Abrams Z conducted a study on 'The future of remote working' in which he finds out that the people working now already know about how to coordinate with the team virtually and work with the team virtually. The psychologist was confident about increase in the trend of working from home. But there are still some unanswered questions like exploring issues of isolation and overwork, how first-time teleworkers adjust to their new circumstances and which types of employees thrive when working remotely.

2020

Choudhury P in November 2020, studied and published research on our Work from anywhere Future in which he found that the

research has shown benefits. The employees opted for WFH had shown 13% increase in productivity. His resulted suggested that the employees should probably opt for which suits them well. It also suggested that work from anywhere can also reverse the brain-drain system which may plague the emerging market.

2021

Aithal S in September 2021, conducted research on an empirical study on working from home: A Popular E-Business Model where it was concluded that the Work from Home model has more advantages than disadvantages. This model can be beneficial for both employers and employees. By using this model company generated high returns at less cost. This study was limited to a single organization which included some sectors only.

PURPOSE OF STUDY

- To understand the need and significance for work from home in an organization
- To study how work from home is helping in sustainable development.
- To understand the pros and cons of the work from home.
- To find the ways for the difficulties in sustainable development through work from home.

- To find the future scope of work from home for sustainable development.

RESEARCH METHODOLOGY

This research is based on the secondary data. The secondary data is been collected through various sources like from various research papers related to the topic. As per this secondary data we have come to findings and conclusion for this research.

FINDINGS

- In this research we found that Work from Home is the best option of working, especially during the Covid-19 Pandemic.
- Work from home has a great contribution in the sustainable development as it causes less commute, less use of office electricity, less paper consumption.
- We also saw in the research, there is great demand for work from home, especially during this pandemic. People are giving more preference to work remotely.
- In this research we can see that it has provided both employers as well as employees the flexibility while working from home.
- Work from home has also helped the organizations in reducing the expenses in business.

CONCLUSION

- The flexibility allowed by the mobilization of technology and the continuous access to the internet disintegrated the traditional work-life boundary.

- The key challenge in a new work-life model i.e., Work from Home is to find strategies to balance the demands of work and personal life.

- The research undertaken by me and my group has shown that the work from home (WFH) option is sustainable.

- The study shows that the option for Work from Home, companies will be able to manage cost and there will reduction of pollution.

- Sustainable development is largely about people, their well-being, and equity in their relationships with each other, in a context where nature-society imbalances can threaten economic and social stability.

- Our natural environment makes human life possible, and our cultural environment helps define who we are. It is therefore essential that our population and economic growth are environmentally sustainable. So Work from Home may help to reduce the emission of harmful gases which is emitted by daily use of cars, Ac's

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POST PANDEMIC ECONOMIC CHALLENGES

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Abstract:

The outbreak of the Covid-19 pandemic is an extraordinary surprise to the India and Indian Economy. With the extended united states of America-huge lockdown all through first and 2d wave, worldwide monetary downturn and related disruption of call for and deliver chains in commercial enterprise, the economic system is probable to stand a long duration of gradual down because of lockdown. The value of the monetary effect will rely upon the length and severity of the scientific need, the length of the lockdown and the way wherein the state of affairs unfolds as soon as the lockdown is lifted. In this paper we describe the nation of the Indian economic system with inside the Covid-19 duration, verify the capacity effect of the surprise on numerous segments of the economic system, examine the rules which have been introduced to date with the aid of using the relevant authorities and the Reserve Bank of India to ameliorate the monetary surprise.

 Keywords: Covid-19, pandemic, monetary downturn, Supply chain, economic policy.

INTRODUCTION

Indian economy in pre-Covid-19 period

Indian economic system in pre-Covid-19 duration the surprise is gambling out in nearly a comparable way in all nations of the arena in phrases of call for and delivers disruptions and the ensuing monetary slowdown because of lockdown with first and 2d wave. In case of India but the trouble is probably greater acute and longer lasting due to the nation the economic system become in, withinside the pre-Covid-19 duration. By the time the primary Covid-19 case become said in India in Kerala, the economic system had deteriorated appreciably after years of horrific overall performance. GDP (gross home product) boom price has been on a downward trajectory in view that 2015-sixteen. According to the legitimate statistics, GDP boom bogged down to four.2% in 2019-20, the bottom stage in view that 2002-03. Industry, which bills for 30% of GDP, shrank with the aid of using 0.58% in Q4, 2019-20. Unemployment reached a 45-12 months high. A predominant motive force of boom in any economic system is funding with the aid of using the non-public company area and PSU. In the pre-Covid19 duration, nominal values of personal area funding were declining as according to document. The general awesome funding initiatives among 2015-16 and 2019-20 declined with the aid of

using 2.4%, while new initiatives introduced fell with the aid of using 4%, as according to information from the CMIE (Centre for Monitoring Indian Economy). Consumption expenditure had additionally been falling down, for the primary time in numerous a long time. High frequency signs of city intake call for display that income of passenger automobiles in addition to patron durables boom reduced in size in February 2020. Overall, city intake seems to have misplaced steam in Q4. Among the distinct signs of rural intake, bike income and the patron non-long lasting phase remained in contraction in February 2020, reflecting susceptible rural call for. The lock-down might have dampened any risk of revival of intake call for and personal funding and call for.

Objectives

To understand basic condition of Indian Economy during post pandemic period.

Review of Indian Economy in Pandemic

The Government Monthly Economic Review credit the revival to strategic reforms and the tempo of Covid-19 vaccination power withinside the united states of america. "India is nicely-positioned at the route to healing with boom impulses visibly transmitted to all sectors of the economic system. Strategic reforms undertaken to date alongside new milestones in vaccination power and different centers with the aid of using enhance of scientific facility have enabled the economic system to navigate the ravaging waves of the Covid-19 pandemic. As according to worldwide projections, India will keep the tag of the fastest-developing economic system in 2022 is count number of difficulties in due date. Here's a better examine elements which can be key in retaining India north of the projections with distinct elements. Global establishments consisting of the World Bank and the International Monetary Fund (IMF) have welcomed India's slow climb out of the pandemic hunch, even as rankings organization Moody's upgraded India's outlook from 'poor' to 'strong' an wish India will cope it with this pandemic. As according to the IMF's flagship World Economic Outlook (WEO), the Indian economic system, which reduced in size with the aid of using 7.3 % cause of the pandemic, is probable to develop with the aid of using 9.5% in 2021 and 8.5% in 2022. In contrast, america is projected to develop at 6% this 12 month and 5.2% the following 12 months. China, on the alternative hand, the IMF stated, is projected to develop at 8% in 2021 and 5.6% in 2022. India has emerged from a "very difficult 2d wave" of Covid-19. "India is doing nicely in phrases of vaccination costs and that's definitely helpful," because it has

been quoted with the aid of using economist in India The IMF forecast for India is greater than a percentage better than the World Bank's estimate of 8.3% for this economic 12 months. World Bank stated the Indian economic system become hit tough with the aid of using the pandemic and no vaccination power replace however is now in healing mode. "Indians had been tough hit with the aid of using the waves of Covid and that's unlucky way. They spoke back with the big manufacturing of vaccines and there's been development at the vaccination effort. But we should comprehend the hit that Covid induced at the Indian economic system and specifically at the casual area of the Indian economic system that's large," as quoted with the aid of using economist in India. The Indian economic system is recovering, and we welcome that. It's going via to the alternative aspect of the cutting-edge Covid first and 2d wave. Meanwhile, worldwide credit score rankings organization Moody's has referred to receding drawback dangers to the economic system and monetary gadget even as upgrading the united states of america's outlook to 'strong' from 'poor'. "The selection to alternate the outlook to strong displays Moody's view that the drawback dangers from poor comments among the

actual economic system and monetary gadget are receding," the organization stated in a word. Moody's stated India's selection to maintain the monetary establishments flush with liquidity additionally decreased the chance to the united states of america from the monetary area. The cutting-edge flow with the aid of using Moody's helps the authorities view that India is rebounding at a tempo quicker than in advance predicted and doubts approximately its monetary revival were positioned to rest. But now many economists factor closer to better tax collections, robust energy intake and report boom in exports as symptoms and symptoms of monetary revival, which might also additionally get India near its monetary boom goal of 10.5% withinside the present day economic 12 months that's appears impossible.

PRIVATISATION PUSH BY GOVERNMENT

Government is attempting to renovate the economic system after its private contraction in a long time via marketplace-orientated adjustments withinside the economic system and hoping to entice funding farfar from China and and different nations. The largest step closer to this purpose become the sale of countrywide carrier Air India to the Tatas for Rs 18,000 crore that's one in every of setback

for the economic system. The sale additionally made for heat sentiment withinside the enterprise and inventory markets because the tea-to-software program conglomerate offered returned the airline 89 years after founding it as Tata Air and 1/2 of a century following its nationalisation. Government's privatisation push in his potential as disinvestment secretary, stated the deal, lengthy withinside the making, will deliver a fillip to privatisation plans. Life Insurance Corporation (LIC) will available in the marketplace subsequent 12 months. The authorities is predicted to promote a 5-10% stake in LIC and lift round Rs 900 billion in what will be India's largest listing. The organization has lengthy been taken into consideration a strategic asset, commanding greater than 60% of India's lifestyles coverage marketplace with Rs 36 trillion of belongings beneathneath management. "We sense the non-public area has come of age, additionally the wider philosophy is it isn't the commercial enterprise of presidency to be in commercial enterprise," Pandey has stated. Confederation of Indian Industry (CII) has stated that the Air India sale will assist embolden self assurance in authorities's potential to shut transactions, hence inspire bidding in destiny income. "The a hit privatisation of Air India marks a momentous occasion and sends out a clean message to the markets and worldwide buyers that the prevailing authorities has the political will to chunk the reform bullet," He introduced that with taxpayers contributing over Rs 1.1 lakh crore to help the loss-making behemoth in view that 2009-10, Air India's privatisation is predicted to launch finances to help authorities's spending efforts in sectors which require concerted hand-holding.

GROWTH IN MANUFACTURING

India's manufacturing facility hobby multiplied at its fastest tempo in 8 months in October on robust call for and accelerated output, a non-public survey showed. Monday's information pointed to an prolonged commercial enterprise healing in Asia's 1/3-biggest economic system from the pandemic-triggered hunch and, along growing fee pressures, might also additionally enhance perspectives the Reserve Bank of India will tighten financial coverage in advance than predicted, like different predominant relevant banks. The Manufacturing Purchasing Managers' Index, compiled with the aid of using IHS Markit, jumped to fifty five.nine in October from September's 53.7, the best in view that February, and last above the 50-stage isolating boom from contraction for a fourth

instantly month. "With businesses gearing up for in addition upgrades in call for with the aid of using constructing up their shares, it looks as if production hobby will keep to increase at some point of the 1/3 area of economic 12 months 2021/22 must the pandemic continue to be beneathneath control," Pollyanna De Lima, economics companion director at IHS Markit, stated in a launch.

BUOYANT DALAL STREET

Indian stocks kicked off November on a robust word as realty and metallic shares helped benchmark indexes near greater than 1% on Monday after 3 instantly classes of losses, with sentiment aided with the aid of using upbeat company results. The blue-chip NSE Nifty 50 index closed up 1.46% at 17,929.65, even as the benchmark S&P BSE Sensex won 1.40% to cease at 60,138.46. Both the indexes hit a couple of all-time highs remaining month, boosting their every year profits to greater than 30%, helped with the aid of using a decline in Covid-19 instances, sufficient liquidity, a re-establishing of the economic system and expectancies of a robust festive season.

STRONG IPOS SETBACK IN MARKET

In every other encouraging sign, Goldman Sachs Group Inc has stated that India's marketplace-capitalisation is predicted to rise $five trillion with the aid of using 2024. It stated new Initial Public Offerings (IPOs) will assist add $four hundred billion to the general m-cap over the following 3 years.So far, in 2021, as many as forty businesses have floated their IPOs to elevate Rs 64,217 crore. "We estimate almost $four hundred billion of marketplace cap will be introduced from new IPOs over the following 2-three years. India's marketplace cap may want to growth from $three.five trillion presently to over $five trillion with the aid of using 2024, making it the fifth biggest marketplace with the aid of using capitalisation," it stated. "We assume the IPO pipeline to stay strong over the following 12-24 months, primarily based totally on latest bulletins from 'new economic system' unicorns and our goal framework for estimating new listings," it stated. Similarly, splendor start-up Nykaa's preliminary public presenting drew bids worth $32.fifty five billion because it become oversubscribed with the aid of using almost eighty two instances on November 1. A Press Trust of India document has quoted service provider banking reassets as pronouncing that as a minimum 30 businesses are trying to together improve over Rs 45,000 crore via preliminary share-income. The companies which can be predicted to elevate finances via their IPOs in November encompass

Policybazaar (Rs 6,017 crore), Emcure Pharmaceuticals (Rs four,500 crore), CMS Info Systems (Rs 2,000 crore), MobiKwik Systems (Rs 1,900 crore), the document introduced.

DROP IN UNEMPLOYMENT, GOOD NEWS ON SALARY HIKES

Job marketplace, which become one of the worst-hit sectors all through the pandemic, noticed a few revivals in September, led with the aid of using the salaried jobs category. According to the Centre for Monitoring Indian Economy (CMIE), employment accelerated with the aid of using 8.5 million in September because the unemployment price declined to 6.9%. The excellent a part of the growth in employment become the growth in salaried jobs, the evaluation noted, including that those accelerated with the aid of using 6. nine million. The employment in salaried jobs accelerated to 84.1 million in September from 77.1 million in August. Employment amongst every day salary people and small buyers additionally accelerated with the aid of using a considerable 5.5 million, from 128.4 million in August to 134 million in September, crossing the pre-pandemic stage of 130.5 million in 2019-20.

Conclusion:

Indian Economy is going through demanding situations in all segments withinside the Economy because of first and 2d Covid wave which has affected the boom and GDP. All the arena together with Agriculture has in large part affected the because of pendemics. GDP has carried out its horrific boom withinside the decade because it has proven poor boom price. India's undertaking is with overall performance of every area and additionally it relies upon upon vaccination price at which power will take place. It has common economic system will enhance as Diwali is at the manner and call for will increase from all area and it'll assist to develop economic system and GDP.

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SUSTAINABLE BUSINESS APPROCHES

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Abstract- The integration of economic, environmental, and social goals into a firm's goals, actions, and planning with the goal of providing long-term value for the firm, its stakeholders, and the wider community is known as sustainable business approach. This means that the approach is formulated and executed so that the needs of the firm and its stakeholders are met today, while protecting, sustaining, and enhancing the natural and resources that will be needed in the future. The research paper has its light shed over how different brands have taken initiatives towards the Sustainable Business Model restructuring and what sort of complications they faced during the remodelling. The secondary data was the main source of data as there aren't many active sustainable business models in India.

India still can learn through the experience from the other competitors who tried reconstructing their business models with sustainability in the focus.

Introduction-

Sustainable business strategy is the integration of economic, environmental, and social aims into a firm's goals, activities, and planning, with the aim of creating long-term value for the firm, its stakeholders, and the wider society. This means that strategy is formulated and executed so that the needs of the firm and its stakeholders are met today, while protecting, sustaining, and enhancing the natural and resources that will be needed in the future.

Simply put, sustainability is a business approach to creating long-term value by taking into consideration how a given organization operates in the ecological, social and economic environment. Sustainability is built on the assumption that developing such strategies foster company longevity.

As the expectations on corporate responsibility increase, and as transparency becomes more prevalent, companies are recognizing the need to act on sustainability. Professional communications and good intentions are no longer enough.

Purpose of Study-

Researcher in the study has discussed and shed light over the possible way outs a firm can use in their day-to-day operations. How the available resources have been exploited or not being optimally used which leads to

wastage.

The researcher brought out brands who have been taking initial steps in the same path but it is costing to the brand in the normal run. Researcher has recommended some solutions in the gap analysis part where the brands can look over the solutions and implement the same.

Researcher has also brought attention on why sustainability is going to be important in many folds, towards the society, the economy and many other factors

Background of the study-

The research background was mainly focused on the existing resource management problems that exists in both commercial and environmental fronts of the society. Researchers have brought out problems like lack of awareness among people and companies making a stride to make the world a better place.

Sustainable approaches have been made globally but no significant progress is witnessed so far. Brands have been making moves like using recyclable raw materials or going online all the way up to operations, though it did not suit many of the firms.

It although is not only on the side of the brands to follow the path of sustainable approaches, the consumers also have to be ready to accept the fact that resource depletion is a problem and it has to be dealt with awareness and a lot of care. Thus, consumers also need to contribute equally on their part of acceptance towards these moves. 12,000 new aircraft at a cost of $1 trillion

Literature Review-

According to Fiber2Fashion, Shoes made from leather, fur, and other animal skins are believed to be trendy in the eyes of many today.

But the growing conscious of eco friendliness has made people to turn towards a new way of Vegan life. Vegan is a person who does not use any product made from animals in his food. This virtue is reflected in the footwear field as well. Nike, the popular American manufacturing company for athletic shoes and other equipment, has come up with a new product, a basketball shoe with the name Nike Trash Talk. The best part of this shoe is that it is claimed to be the first basketball shoe that is made from manufacturing waste. According to Atagorg,

In order for the aviation industry to reach its target of 1.5% average fleet fuel efficiency improvement per annum from 2010 until 2020, the world's airlines have purchased

since 2009. According to ScienceDirect

The waste from leather industry is categorized into solid wastes and wastewater effluent with the presence of VOC and toxic chemicals

Data Methodology-

Moreover, the data collection method was focused on secondary data as there aren't many evident movements from the existing stage which only makes it difficult to gather raw firsthand information.

On global level, there were few evident stages of success in the sustainable business approaches but it is still far from the ideal state that it should be in.

Gap Analysis

When it comes to business making a stride in making a sustainable approach towards their surrounding by approving their product to a level that is not only good for environment but also help them to eliminate waste and innovate in such way that has never seen before in their respective industry.

Apple

Since the invention of iPhone apple have become the most valuable company in the world. It has sold 2.2 billion iPhones that means each year just by removing the charger apple have saved over $264 million dollar. This from environment point of view have saved more than 2 million metric tons pf

According to The Fashion Manager, Sustainable fashion in the simplest term is to maintain "fashion without costing the earth"

companies which prevail in the market. Secondly, the concept of sustainability in India is still in the infancy

carbon annually, equivalent to removing nearly 450000 cars from the road per year.

Removing Charger to be more sustainable makes more sense in regions like the US or UK where they have installed huge base of apple product and over time these accessories have become redundant. However, this might not be the case in emerging economies like India and Brazil where apple devices are already priced higher and have few customers base. Removal of accessories will be an added cost for the users.

Tesla

Tesla now being the most valued electric car company and being in for front of sustainable business approach that not only helps the environment but also helps the consumer save money for gas in a long run. It is only far that tesla's next ambitious project will target global aviation industry which is responsible for 12% of CO_2 emissions from all transports sources, compared to 74% from

road transport. At the Tesla's battery Day event last month gave some clarity on how the electric Airplanes might work. Main problem with electric airplanes would be the whole battery storage and energy issue that needed to be resolved, By solving this main hurdle we can see intercontinental air travel possible.

First and foremost, hurdle would be that technology for that is not feasible yet as it requires around 400-watt hours of energy per kilograms of plane a figure that would require big shift in air frame technology.

Nike

Shoes are generally made from leather, fur and other animals' skins are to be believed bad for the environment and is not at all made of recycle material. Nike as being the leading manufacturing of athletic shoes have introduced new product called Nike Trash Talk. The best part of this type of shoes it is made from manufacturing waste such as synthetic waste or leather waste which is available in factory floor. They have also made people aware of their sustainable business approach by a recycling program called Nike Grind. In the long run by doing just this initiative Nike might save 55000 ha of land being polluted by tanneries and saving 50 million lives by giving them adequate social environment.

One of the biggest disadvantages of this initiative is high cost of sustainable shoes that are more expensive than the traditional non recycled product and also the quality is sometimes not adequate enough that justified its price.

Conclusion and Recommendation-

To conclude the report, Researchers came across brands in India and in the foreign markets who do use sustainable measures to run their day-to-day operations, although it is more on the down side as those sustainable measures try to break the orthodox wave and create their own way but on the contrary part, they fail on both ends.

Recommendations from the researcher's end would be that every brand that exists in the market should follow the most effective natural pace in following the sustainable business models as it is the only way to actually learn the modes on which the firm actually is delivering to their customers.

Without thoroughly understanding the base of how the customers are served, what are the factors affecting the wave of competition and how the brand stands in the market considering the market standards and customer preference, the brand should not just switch to change the business models.

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