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VJIM

AN INNOVATION DRIVEN B-SCHOOL

5th INTERNATIONAL CONFERENCE

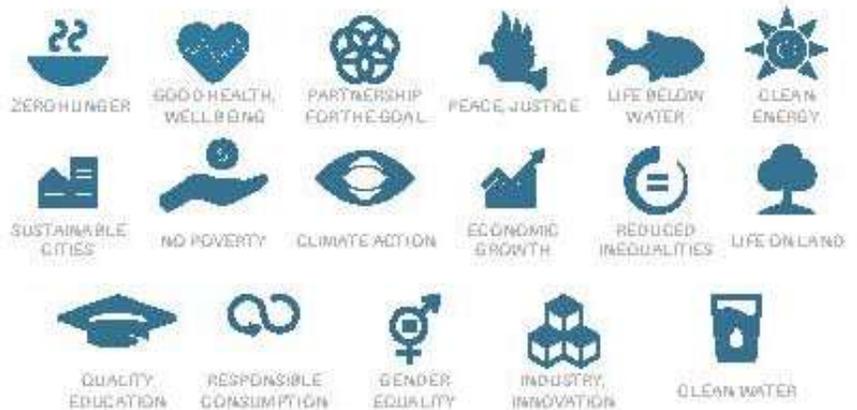
Impact of Current Events on the Future of Business

27 - 29 April, 2023

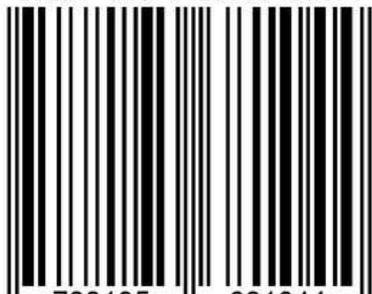
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Achieving Sustainable Development Goals: From Promise to Reality



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About the Conference

‘Achieving Sustainable Development Goals: From Promise to Reality’

At the United Nations headquarters in New York, where the organisation was celebrating its 70th anniversary, Heads of State and High Representatives came to an agreement on 17 Global Sustainable Development Goals (SDGs) and their 169 corresponding goals. This agenda is integrated and indivisible, balancing the three pillars of sustainable development: economic, social, and environmental, and is expected to be completed by 2030. These SDGs seek to establish a future in which human habitats are secure, resilient, and sustainable, and in which everyone has access to affordable, reliable, and sustainable energy.

The UN has made a historic decision on behalf of the global citizens to establish a comprehensive, far-reaching, and people-centred set of universal and transformative goals and targets. It is a collective effort on the path towards sustainable development in the pursuit of global development and of a “win-win” cooperation to bring enormous benefits to one and all globally. These SDGs aim to ensure that every nation shall freely exercise full permanent sovereignty over all its wealth, natural resources, and economic activity. The UN urges the whole world to implement them for the contemporary and prospective generations as well.

The 5th International Conference: “Impact of Current Events on the Future of Business” (5th ICEFB, 2023) is a pertinent platform for academicians/practitioners, researchers, and students to share and deliberate potential paradigms management as a discipline can be reimagined to contribute towards achieving a sustainable solution. The pandemic, global semiconductor shortages, Russia-Ukraine conflict, oil, and other commodity crises have radically transformed the demand for products and services while exposing grounds of vulnerability and fragility in global supply chains. These events have challenged companies, business models and forced them to reconfigure their business archetypes and stratagem. The resilient companies have demonstrated innovative levels of visibility, agility, productivity, and end-customer connectivity while preserving their profitability. Discerning the worldwide impact of such disruptions (including climate crisis), the new normal is a propitious harbinger that propels organizations towards providing sustainable solutions with long-term fruitions to society, the environment, and the economy. Such solutions should be proposed with the perspective on managing the 5P’s (People, Planet, Prosperity, Peace, and Partnership) in the VUCA world.

Editors

Dr. Falguni H Pandya
Dr. Nalluri Padmaja
Dr. Dammalapati Ravinath
Dr. Ramdeni Srinivasa Rao

About Vignana Jyothi Institute of Management



VJIM Hyderabad, a premier B-School established in 1993, offers quality management education programs. Approved by AICTE, accredited by NBA, and rated National “A” by CRISIL, VJIM aims at grooming professional managers by providing learning opportunities centred on the stipulations of the industry. The cornerstone for this initiative: ‘delivering education modelled after international standards, steeped in Indian values,’ is facilitated by qualified faculty members with academic, industry and research expertise, and ably mentored by the Governing Council members. The institution enjoys 3000+ alumni in the corporate and entrepreneurship world with 200+ students graduating annually. The faculty espouse innovative pedagogical tools and comprehensive research paradigms to deliver the curated content that adheres the graduates alacritous with the industry. Research at VJIM focuses on providing pragmatic solutions to tangible business predicaments and aims at associating conceptual erudition with the application dynamics of the industry. VJIM strives to partake in research with which the business world connects. Innovation and market relevance have been the VJIM hall mark.

VJIM offers the widest range of academic programmes in management education that include Post Graduate Programs in Business Management, Doctoral Programme in Management, and Executive PG Programmes for working executives. In addition, VJIM actively trains practitioners and academicians through Management Development Programmes (MDPs), and Faculty Development Programmes (FDPs), etc.

About AMDISA

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AMDISA - *Association of Management Development Institutions* in South Asia is a network of Management Education and Management Development Institutions in South Asia. It has 303 members. Its mission is to “Promote management education and management development activities in South Asia, taking into account the economic, social and cultural context of the Region, with the firm dedication to worldwide exchange of experience and ideas in the fields concerned.” AMDISA is the only Association which networks management development institutions across the eight South Asian Nations through exchanging information, facilitating inter-country research initiatives, conducting regional conferences, workshops, colloquia and programmes, and thereby providing a forum for interaction among academics and business leaders.

AMDISA launched the global benchmark quality assurance and accreditation system for Business Schools - SAQS. SAQS is the International Quality Assurance Program run by AMDISA as a service to the management education profession worldwide. SAQS emerged in an EFMD - AMDISA cooperation through a European Union funded Asia - Link project in 2003-04. It is inspired by EFMD’s EQUIS criteria and is designed as an international accreditation system. It is a globally benchmarked system for mentoring, quality improvement, quality assurance and accreditation. SAQS accreditation processes lead to improvement through highlighting the need to meet internationally accepted quality standards. SAQS Accredited Quality Label is a recognition to the institution’s commitment to Quality and Quality Assurance through continuous improvement. SAQS accreditation is institutional. Institution being defined as the organisational unit providing business and management education. So far 31 schools have been granted Accreditation - 1 from Bangladesh, 26 from India and 4 from Pakistan; and 10 schools have been granted Re-Accreditation - 9 from India and 1 from Pakistan. More schools in the region are expected to seek the academic guidance and strategic audit provided by SAQS in the near future.

AMDISA publishes a Newsletter three times a year and the South Asian Journal of Management, a quarterly double blind refereed journal. The South Asian Journal of Management (SAJM) is a prestigious publication and is indexed by two internationally acclaimed database services, EBSCO and ProQuest.

Message from the Director

One of the most crucial issues of the twenty-first century is sustainable development, which refers to development that satisfies existing needs without impairing those of future generations. A wide concept with many disciplines included, sustainable development has both a theoretical basis and a practical outlook. It appeals to a wide range of interests, from nations to corporations to stakeholders, because it integrates economic development and environmental conservation into a single system.



Making the shift from theory to action will be the next great challenge as the global community enters the next stage in the evolution of sustainable development. The world's population is predicted to quadruple in the next 50 years, putting immense strain on food, shelter, and energy resources. Innovative solutions combining sustainable development ideas must be developed and implemented to reduce these imminent economic and environmental uncertainties and guide society through the following transition phase.

Furthermore, the goal of this initiative is to promote awareness about the necessity of sustainable development and to foster a sense of communal responsibility for the environment. It aspires to create collaboration and partnerships that can accelerate progress towards a sustainable and inclusive future by engaging stakeholders from many sectors and stimulating dialogue.

To provide a place for discussing, deliberating, and delivering pertinent findings, lessons, and insights about creating sustainable development goals, a three-day international conference was held at VJIM, Hyderabad, from April 27 to 29, 2023. The proceedings make an effort to bring together some selected reviews, promising ideas, insightful analyses and original and unpublished research work that was presented during the conference. This conference's ultimate purpose is to empower individuals and communities to become active agents of change, thereby contributing to the advancement of sustainable development goals. I hope this will help to inspire and educate individuals with the knowledge and resources they need to make informed decisions and apply sustainable practises in their personal and professional life by gaining accessible information, actionable recommendations, and inspiring case studies.

Dr. Srinivas Subbarao Pasumarti
Director, VJIM Hyderabad

Message from the Former Director and Convener

Sustainable Development Goals (SDGs) are the world's shared plan to end extreme poverty, reduce inequality, protect the planet and many others by 2030. Individuals, innovations and actions are helping the planet to realize the potential and promise of the SDGs. They are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental, however the scale and ambition of the new agenda requires a revitalized global partnership. This global partnership is bringing together governments, the private sector, civil society, other actors and mobilizing all available resources.



All 17 SDGs are integrated and action in one area affect outcomes in others, and that development must balance social, economic and environmental sustainability. The creativity, knowhow, technology and financial resources from all of society are necessary to achieve the SDGs in every context. The Sustainable Development Goals were adopted by the United Nations in 2015 as a call-to-action for people worldwide to address five critical areas of importance by 2030: people, planet, prosperity, peace, and partnership.

The future of humanity and of our planet lies in our hands and it lies also in the hands of today's younger generation who will pass the torch to future generations. It is important to recognize the link between sustainable development and other relevant ongoing processes in the economic, social and environmental fields.

The knowledge, skills, values and attitudes required by citizens to lead productive lives, make informed decisions and assume active roles locally and globally in facing and resolving global challenges can be acquired through education for sustainable development and global citizenship education, which includes peace and human rights education, as well as intercultural education and education for international understanding.

The 5th international conference with a theme of "Achieving Sustainable Development Goals: From Promise to Reality" was held at VJIM, Hyderabad, from April 27 to 29, 2023 to provide a platform to discuss, deliberate and deliver relevant research, lessons and insights. The proceedings is an attempt to bring together some selected reviews, promising ideas, insightful analyses and original and unpublished research work that was presented during the conference.

Dr. Ch. S. Durga Prasad
Former Director and Convener, VJIM Hyderabad

Message from the Conference Team

Organizations across the globe must adapt to contingencies to persevere and find ways and means to make themselves sustainable. This is the fifth series of VJIM's International Conference on the "Impact of Current Events on the Future of Business" with a sub-theme 'Achieving Sustainable Development Goals: From Promise to Reality'.

The Sustainable Development Goals or Global Goals are a collection of seventeen interlinked objectives designed to serve as a "shared blueprint for peace and prosperity for people and the planet, now and into the future".

The SDGs are as follows: no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation, and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace, justice, and strong institutions, and partnerships for the goals. By putting sustainability at the centre of their agenda, the SDGs emphasise the interwoven environmental, social, and economic dimensions of sustainable development.

As the world faces a deepening cost-of-living crisis, which has enormous implications for advancing the SDGs, particularly in developing countries, the SDGs moment provide a platform for world leaders to showcase the bold actions and solutions required to set the world on course toward achieving the SDGs. At a time of great uncertainty, the SDGs – a blueprint for ending poverty, tackling the climate crisis, boosting the economy, and many more show the way forward to a better future for all on a safe and healthy planet.

To scale up activity on the SDGs, global policies, governance arrangements, and economic systems would need to undergo transformative change. Equitable access to quality education, clean water and sanitation, sustainable towns and cities, comprehensive stimulus packages in critical sectors, and access to financing for developing countries are all required. Developing momentum for key summits and global meetings is critical to reinforce the 2030 Agenda for Sustainable Development's sustained relevance. To make the SDGs a reality by 2030, urgent measures for an equitable, inclusive, and faster transition to sustainable development must be highlighted, demonstrating that revolutionary change at scale is achievable between now and 2030. VJIM, an innovation-driven business school, has been a herald of business paradigms that are pioneering and pragmatic for the industry. The 5th VJIM International Conference resonates with an endeavor to achieve sustainability that will prevail over both natural and man-made adversities.

Dr. Srinivas Subbarao Pasumarti

Dr. Ch. S. Durga Prasad

Dr. Falguni H Pandya

Dr. Nalluri Padmaja

Dr. Dammalapati Ravinath

Dr. Ramdeni Srinivasa Rao

Mr. Raghu Mantha

Preface

This book is motivated by the yearning to explore sectoral and organizational experiences in anticipating, innovating, and adapting to achieve sustainability. The book, therefore, presents theoretical and research-based practices related to the processes, systems and strategies to achieve sustainable development goals.

The United Nations General Assembly (UNGA) developed the SDGs in 2015 as part of the Post-2015 Development Agenda, which aimed to construct a future global development framework to replace the Millennium Development Goals. They were explicitly articulated and endorsed in a United Nations General Assembly resolution known popularly as Agenda 2030.

In July 2017, the lists of targets and indicators for each of the 17 SDGs were revealed in a UN resolution. Each objective normally comprises 8-12 targets, and each target has one to four indicators used to monitor progress towards the goals, with an average of 1.5 indicators per target. The aims are either outcome targets (to be achieved circumstances) or methods of implementation targets.

Three components or dimensions must come together to accomplish sustainable development: economic, sociopolitical, and environmental factors are all vital and interrelated. Multidisciplinary and transdisciplinary research spanning all three sectors will be required for progress. This conference is born out of the recognition that sustainable development holds the key to ensuring a harmonious coexistence between humanity and the planet. It aims to explore and promote sustainable practices across various sectors, providing valuable insights and practical solutions that can guide decision-makers, businesses, communities, and individuals towards a sustainable future.

In this milieu, the VJIM's 5th International Conference 2023 has donned the title: "Impact of Current Events on the Future of Business." The crux of the conference is: "Achieving Sustainable Development Goals: From Promise to Reality".

Editors

Dr. Falguni H Pandya

Dr. Nalluri Padmaja

Dr. Dammalapati Ravinath

Dr. Ramdeni Srinivasa Rao

Conference Team

❖ **Dr. Srinivas Subbarao Pasumarti, Director , VJIM**

Dr. Srinivas Subbarao Pasumarti has to his credit 220 research papers published in International and National Journals which includes books, book chapters and working papers in IIM Ahmedabad. He has presented 60 conference papers and 23 patents filed and published by Indian Patent Office. Under his guide ship 11 PhDs and One MPhil are awarded. He received the Best Teacher Award from Jawaharlal Nehru Technological University, Kakinada for the academic years 2009-2013. His Academic visits include Singapore, Malaysia, Sri Lanka, China, Turkey, Australia, UAE, UK, Thailand, and Japan. As a CEO of the Incubation center he raised 1.5 crores from Govt. of Odisha for developing Agri Incubation Center. He is associated with various companies as a consultant and trainer namely Paradip Port Trust, Aarati Steels, OAS & ORS officers of Govt. of Odisha, Borosil India Ltd., Perennial Technologies Pvt. Ltd., Skoda Auto Volkswagen India Pvt. Ltd etc.,



He has to his credit many meritorious awards and scholarship. He received Odisha Inc Award in Promoting Entrepreneurship from Shri Pratap Jena, Hon'ble Minister of Health, Law and Information & Broadcasting, Government of Odisha at the Eighth Odisha Living Legend Awards, Odisha Diary Foundation, 2018. He was awarded Best Startup Boot-camp Award from Shri Naveen Patnaik, the Chief Minister of Odisha, for generating a record of 535 startup ideas by Sri Sri University during the Startup India Yatra (2018). He received "AIMS-IRMA Outstanding Management Teacher Award" on 26th Dec 2016, at AIMS-14 conference which was inaugurated in MICA by the Director IIMA. He received the award from Prof. RC Natarajan, Director, IRMA, Anand

❖ **Dr. Ch. S. Durga Prasad, Former Director & Convener, VJIM**

Dr. Ch. S. Durga Prasad has 32 years of experience in Academia, Industry and Research with sound knowledge of Cross-Cultural Management, Global Mindset, Entrepreneurship, Training & Development, Leadership, Organisational Behaviour, Human Resource Outsourcing and Psychometric Testing. He is an accomplished administrator with a track record of enhancing the institute's performance and developing operational policies, systems & controls, motivational schemes, and educational standards. He has to his credit research publications in reputed journals, paper presentations in National and International Conferences and book publications. Six research scholars have been awarded Ph.D under his guidance. He has organized international and national conferences, MDPs, FDPs, workshops and completed many corporate projects. He has designed & conducted several customized training programmes geared towards optimising knowledge and operational efficiencies of organisations.



❖ **Dr. Falguni H Pandya, Sr. Assistant Professor, VJIM**

Dr. Falguni Pandya has total 14 years of work experience as an academican and researcher. Her teaching and research areas are Investment Analysis and Portfolio Management, Derivatives, International Financial Management, Bond valuation and Bond Management, Corporate Finance and Economics. She has to her credit 39 publications in national and international journals of repute. She conducted workshops for research methodology and hands on experience in SPSS for PG students. She has organized national and international conferences, expert lectures, and seminars. She received best research paper awards twice and has authored a book, titled, “Security Analysis and Portfolio Management”, published by Jaico Publishing House.



❖ **Dr. N. Padmaja, Associate Professor, VJIM**

Dr. N. Padmaja is an Associate Professor in Statistics and Business Analytics. With more than 25 years of experience in teaching Applied Statistics, Business Research Methods, and Business analytics to post-graduate students. Leading various consulting and research assignments, Dr. Padmaja is actively involved in accreditation activities of the institute. Her research interest is in the field of Applied Statistics in Management Studies and Image Compression.



❖ **Dr. D Ravinath, Professor, VJIM**

Dr. D. Ravinath, is a Professor of Marketing at Vignana Jyothi Institute of Management, Hyderabad. He offers courses on Marketing, Strategy, and Rural Marketing. He is an Executive Member of the Rural Marketing Association of India (RMAI), New Delhi. He also offered this course in China for two consecutive years at Beijing Normal University, Beijing. He has nearly three decades of work experience (industry and academics). Dr. Ravinath started his career with Sterlite Industries India Pvt. Ltd. Silvassa as a Commercial Trainee (Vedanta Group) and also worked in the UK. He later joined academics and worked with GITAM School of International Business and Jaipuria Institute of Management, Indore. He has actively engaged himself as a committee member in the AACSB, SAQS, and NBA accreditation processes. Presently he is involved in the NBA reaccreditation at VJIM. He has guided three Ph. D. students and one M. Phil student. He has organized international and national conferences and published papers in national and international journals.



❖ **Dr. R Srinivasa Rao, Sr. Assistant Professor, VJIM**

Dr. R. Srinivasa Rao is currently working as Sr. Asst Professor at Vignana Jyothi Institute of Management, Hyderabad. He has over 23 years of teaching experience. He holds M.Sc., M.Phil., and Ph.D. in Statistics. His research interests are marketing Analytics and Financial Econometrics. He has publications in international and national journals. He has conducted several Faculty Development Programmes in the areas of Multivariate Data Analysis Using MS Excel and R and Financial Econometrics using E- Views.



❖ **Mr. Mantha Raghu, Librarian, VJIM**

Mr. Raghu Mantha has twenty-two years of professional experience in handling academic libraries. He has submitted his Ph.D. thesis in the field of LIS. He has strong experience in handling the academic libraries and processes skills. In using library systems and Digital Libraries. He has also published two books' chapters published by IGI Global Publications, USA. He was Coordinator for a workshop on Transforming Libraries to Learning Resource Centres: Innovative Solutions for Academic Libraries. Earlier to that he has organized a workshop on DELNET Resources, services, and facilities & KOHA: An Open Sources at VJIM. He has published articles and presented papers in various Seminars and Conferences. Out of his passion he has done his executive program in Digital marketing. He is also Asst. Editor of Gavesana Journal of Management, VJIM's in-house journal.



Reviewer Board

❖ **Dr. Ramakrishna Yanamandra, Skyline University College, Sharjah, UAE**

Dr. Ramakrishna Yanamandra, is an Associate Dean of Undergraduate Program and an Associate Professor in the School of Business of Skyline University College, Sharjah, UAE. He is a PhD in Supply Chain Management from Jawaharlal Nehru Technological University (JNTU), Hyderabad, India. His teaching, research and consultancy areas include Logistics and Supply Chain Management, Operations Management, Lean Management and Quality Management. He has presented in reputed international conferences and published articles in leading journals.

❖ **Dr. Bijal Mehta, Associate Professor, Ahmedabad University, Ahmedabad**

Dr. Bijal Mehta is an associate professor at Amrut Mody School of Management, Ahmedabad. She has more than 22 years of experience in Academics, research and industry. She has presented research papers in national and international conferences. She has to her credit research papers published in national and international of repute including ABDC-A*and Scopus. She has rich industrial exposure working for various organizations ranging from insurance to consultancy in India and abroad. Under her guidance PhDs were awarded and many PhD Scholars are actively pursuing research. She has mentored various projects. She has received various grants for research projects. She has taught and introduced various subjects include Marketing Management, Products Brands and Markets, Advertising & Sales Promotion Management, Tourism and Hospitality Management, Services Marketing, Sales & Distribution Management, Qualitative Research Methods and Digital Marketing.

❖ **Dr. M. Jayasree, GITAM School of Business, Hyderabad**

Dr. M. Jayasree is Professor at GITAM School of Business GITAM (Deemed to be University) Hyderabad. A doctorate from Andhra University She has over 25 years of teaching experience in the area of Finance. She has research articles published in National and International journals which include ABDC, ABS, Scopus indexed and with Sage publications. Four research scholars have been awarded Ph.D under her guidance at GITAM HBS. She has been a chairperson at several international conferences and reviewer for ABDC listed journals. She is a case author and her cases are published with IVEY which are also listed on the Harvard Business Review. Her cases are subscribed across eight countries and also by IIM's in India.

❖ **Dr. Radhika Ramanchi, GITAM School of Business, Hyderabad**

Dr Radhika , professor, HOD Department of Finance GSBH GITAM university, she published several research papers in national and international publications with High impact factor and indexed in Scopus, Elsevier, ABDC andABC also presented papers in National and International Seminars conducted by Premier Institutions like AIMS International, IIMs and IITs.She has published several case studies with renowned international publishers such as HBR, Emerald and Case centre.She visited threecountries to deliver lectures on topics related to her Research.She has been guiding doctoral students of management at HBS for their PhD, research degrees. four of her Research Scholars has been awarded Ph.D. She has won Second Prize at ISB-IVEY League Global Case Competition in 2016 against 94 other entries a case study

she co-authored with Dr Sunita Mehta, on “Barefoot College of Tilonia: Lighting Up Rural Lives in Under-Developed Countries”. The prize carried a cash award of \$ 3000. This case Published in Harvard Business Review. She has done Minor Research Project Sponsored by University Grants Commission UGC “Impact of FIIs on Indian Banking Sector” from August 2013-March 2015. In addition to that, she has won the prestigious Macro Research Fellowship of the Indian Institute of Banking and Finance for the year 2016-17. She has won several prestigious awards for her research excellence and outstanding academic achievements. GITAM honoured Dr. Raavi Radhika with the Best Researcher Award -2018 at the 9th Convocation.

❖ **Dr. Suman Suddapalli, GITAM, Hyderabad**

Dr. S.Suman Babu is working as Associate Professor of OB & HR at GITAM Hyderabad Business School (GHBS), GITAM (Deemed to be University), Hyderabad for past 13+ years. Dr. Suman’s research interests relate to understanding how work-life balance impacts on employee performance, employee stress reduction, employee retention and organizational productivity. He applies this knowledge of work-life balance in designing effective models of work-life constructs especially for IT sector. He has published 30 research papers. His research has appeared in leading academic journals such as International Journal of Management Sciences, NHRD Network Journal, Indian Journal of Training and Development, IPE and IUP Journals. His research papers were listed in Scopus, Proquest & EBSCO. He has also presented 20 research papers in National and International Conferences and participated in various training programs and UGC refresher courses. Under his guidance 4 PhDs were awarded and 8 PhD Scholars are actively pursuing research. He has carried out 2 consultancy projects for TSRTC-Hyderabad Metro Rail and GMR Rajiv Gandhi International Airport, Hyderabad. He has rich industrial exposure working for various organizations ranging from Electronics to IT in India and abroad. Prior to joining HBS, he taught SHRM, Performance Management, Research Methodology and Statistical analysis for MBA Part Time Program at SMS, JNTUH. He is also university top ranker and recipient of JNTUH fellowship to pursue his Full-Time PhD program. At GITAM HBS, Dr.Suman teaches OB, HRM, Performance Management, Strategic HRM, Global HRM, Innovation & Entrepreneurship. He worked in India and Abroad in various positions ranging from Manufacturing to IT Sectors.

❖ **Dr. Ratna Vadra, IMT, Gaziabad**

Dr. Ratna Vadra is Assistant Professor in area of Economic Environment and Policy at Institute of Management Technology, Ghaziabad. She is a Ph.D. in Economics with specialization in Public Finance, and M.A (Economics) from Aligarh Muslim University, Aligarh. She has also qualified the UGC (NET) in Economics. Her academic work has been published in national and International journals. She has also presented papers in number of conferences in India and abroad. She has also attended Faculty Development Programme in area of International Business at Georgia State University, Atlanta, Georgia and at Darla Moore School of Business, University of South Carolina, USA. Her areas of teaching and research interest are Macro Economics, Public Finance and International Trade, International Business and Multinational Strategy.

❖ **Dr. Swati Basu Ghose, MSRM, Bangalore**

Dr. Swati Basu Ghose is an Associate Professor in the Department of Marketing and Head – Kathaweshan - RIM Case Center. Dr. Basu Ghose has delivered invited talks in various webinars, moderated panel discussions on contemporary topics, played a role as external moderator and evaluator for post graduate management examinations and empirical projects in RIT and RUAS, Bangalore, and led an international conference on digital marketing. Her current areas of interest are in Retail Management, Consumer Behavior, FMCG Sector, Housing Finance, Bottom of the Economic Pyramid and Integrated Marketing Communications and Leadership. She has been listed as an approved research supervisor for the research program of Ramaiah University of Applied Science.

❖ **Dr. Jyothsna Mallela, GITAM, Visakhapatnam**

Jyothsna Mallela is a Professor and Head of the Department of Marketing at GITAM School of Business, GITAM (deemed to be) University, Visakhapatnam. She is a Gold Medallist from Andhra University for Best Thesis in Ph.D. She is the recipient of Best Researcher Award, from GITAM University. She was also conferred with Visiting Prof. University of Nebraska, Omaha, USA. She is a postgraduate with MBA and M.Com. With a teaching experience of three decades, she has ten Ph. Ds awarded under her guidance and published a no. of research papers including research papers in collaboration with Professors from the University of Nebraska, Omaha, USA, and the University of South Alabama, USA.

❖ **Dr. Bhavana Raj K, IPE, Hyderabad**

Dr. K. Bhavana Raj holds a doctorate degree in Management, working in the area of Banking, Finance & Business Analytics at Institute of Public Enterprise, Hyderabad, India, & is a prolific researcher and has published numerous research papers and case studies in various journals of international repute. She has more than 15 years dedicated to teaching and research. She believes in gender equality and equal employment opportunities for women. She is also a reviewer for many reputed international journals. Her research interests include Risk Management, Basel, Corporate Finance, Risk Modelling, Financial Analytics, Corporate Governance etc. She has a blend of both engineering and management expertise, holding a B. Tech degree in Computer Science & Engineering, M.B.A and Ph.D from Jawaharlal Nehru Technological University, Hyderabad (JNTUH), India. She also has more than four years' experience in HSBC Bank in the capacity of Risk Advisor in the department of Credit Appraisal and Risk Management.

❖ **Dr. Atluri Sri Ram, VJIM, Hyderabad**

Dr. Atluri Sri Ram has more than 30 years of experience in diverse areas such as teaching, researching, consulting and mentoring in management education and creating and enhancing human resources. He has published more than 67 papers in National and International Journals of repute and wrote 7 books and book chapters and completed two sponsored projects. His domain areas are Behavioral Finance, Entrepreneurship and Corporate Governance. Alongwith accomplishing academics imperatives productively; he has executed administrative assignments such as

Controller of Examination, Regional EMACET Co-ordinator, Chief-Warden, Principal, Academic Director, Director and Student Affairs diligently.

❖ **Dr. Sheelam Jain, VJIM, Hyderabad**

Dr. Sheelam Jain has more than 19 years of experience in academics, research and industry. Her research interests in the field of HRM practices, organizational citizenship behaviour, workplace attitudes, mentoring, career development and employability skills facilitated her to publish 19 research publications in various journals (ABDC, ABS, Scopus indexed) and paper presentations in national and international conferences. She contributed as an Article Editor and Reviewer for SAGE Open and Reviewer for Journal Organizacija (Scopus). Her corporate exposure includes seven years of experience in the field of talent acquisition, performance management, training and development in IT industry and management consultancy. She is an All India topper of HRD course, gold medallist of Enhancing Soft Skills and Personality course and silver medallist for Train the Trainer course organized by IITs.

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Impact of Climate Change on Indian Agriculture Sector: Food Security, Crop Pattern and Management

Ashok Kadaverugu*, Pratyusha K.**, Machiraju Ramprasad*** and Viswanadh G. K.****

ABSTRACT

This study discusses crops and developmental issues. Short and long-term actions needed for food security are detailed. Telangana is examined in this context. Our findings conclude that crop selection during seasons and the pattern, combination cropping are the most relevant actions directly linked to ensure Sustainable Development Goals. In Year of Millets, there should be should shift gradually from Rice to Mil-lets, which is needed for overall health and economy. Edible oils, Fresh fruits etc are still the major imports. The diets should change for SDG. For example, green peas, seeds of beans, horse gram have to be used in the place of imported pulses. Many nations facing acute financial and food crisis .Bread became luxury for common men. On the other hand India has surplus food grains. New companies for barter trade are need of the hour.

Keywords: *Climate change; Crop pattern; Food security; Millets; SDGs.*

1.0 Introduction

Even after the remarkable progress achieved during the last sixty years in reducing world hunger, by different practices such as mid-day meals in Indian schools, highly subsidized rice/wheat through fair price shops, the hunger is not eliminated. UN estimated 821 million people are chronically under-nourished as on 2017, as a direct consequence of droughts, environmental degradation and the biodiversity loss. About 90 million children under 5 years of age are dangerously underweight. Two billion people around the world lack the essential micro nutrients they need to survive. At the same time, it is noticed that 500 million people are obese (FAO, 2015). To satisfy these growing demands driven due to population growth and dietary changes, food production has to be increased at least by a whopping 60% by 2050.

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However, in Indian context, the Right to Food a guaranteed Fundamental Right which is mandatory by the constitutional remedy available under Article 32 of the Constitution. Through the National Food Security Act, Government of India enacted in 2013 for providing food and nutritional and health security for all humans, by ensuring access to sufficient quantity of good quality food at a very affordable price to people to live a dignity life. But, due to the impending climate variability, ensuring food security in India is not quite stable as estimated. Climate change has been the primary reason for the food shortage across the globe. Despite the industrialization, mechanization, globalization and digitization, food security affected by the climate variability is not controllable. Here it is apt to cite a quote “Nature has given enough for everybody’s needs but not for anybody’s greed.

For all the poor people, modifying to the climate variability vis-a-vis food security, go simultaneously. A paradigm shift in the farming and food systems which are resilient and adaptable to the climate changes, more productive, and more sustainable with reduced labor costs to eliminate hunger and malnutrition is required. It is also essential to examine and balance the distribution of the food, to control the two extremes of obese and malnutrition and to inculcate healthy dietary habits to keep the menace of the diabetes under control. FAO of UN, has critically examined in 2015 and recommended to mitigate the climate change so as to keep it, at the standards, where it is still possible, so as to ensure and to provide food security without malnutrition. This is achieved only with the changes in agriculture crop pattern, genome modification of seeds to resist the climate changes, with rise in global temperature and various new varieties of pest threat. Talon and Gmitter (2008) have observed the need of innovative breeding strategies and a better efficient use of genetic resources to increase resistance to climate change to increase the yield. In this exploratory paper, we aimed to study the impact of climate change essentially on Indian farming (the world’s highest populous country) sector vis-à-vis the changes proposed in the crop pattern so as to make the country food secure, safe with reduced pesticide residues, reduce imports, increase exports by augmenting the agriculture infrastructure coupled with satellite technology and effective policy planning.

Recent climate change and climate vulnerability studies show that land degradation, high-intensity rainfall in short duration, pluvial floods, heat waves, extreme temperatures, cyclones, water availability, shortage in farm labor, monkeys menace, lack of technological implementations and drought are major factors which are dramatically affecting the agriculture and allied sectors (Palanisamy, 2019; Your and Arora, 2020; Chandio et al., 2022; Subba Rao et al., 2022; Tanti et al., 2022).

Ensuring Sustainable development goals (SDGs) such as Zero hunger (goal-2), Good health and well-being (goal-3) with balanced diet, Responsible consumption and production (goal-12), and No poverty (goal-1) are all related to the agriculture sector and to the climate change. To achieve these SDGs, every country should engage in strategic planning of its agriculture policy and as agriculture is state subject as per Indian constitution, it is proposed to study the policy at state level, taking the newly formed state of Telangana which is the

pioneer in introducing the changes. Even though it was observed by the United Nations (UN) that the undernourished people decreased globally, by almost half in the last two decades owing to increase in economy and in farm productivity, still few developing countries in Africa and South America are facing severe food insecurity. The SDGs aim to end all types of hunger and malnutrition by 2030, assuring all children should have adequate and nutritious food throughout the year, by promoting sustainable farm practices, supporting small-scale and medium scale farmers and providing equal access to the cultivable land, production technology, and crop loans facilities and to the agricultural markets. International cooperation is the hour of need to ensure sufficient investment in agriculture infrastructure and technology to improve the productivity, towards achieving zero hunger goal (UNDP). Agriculture infrastructure includes indoor farming, green houses, hydro phonics etc. in view of monkeys menace, these practices must be popularized which may require large investments.

India, the largest subcontinent is no exception to the problem, comprising of 28 states, with varying agri climatic conditions having its own diversity in all aspects – culture, religion, food habits. All the problems which were on the globe, appear in a single country, the India. The rich obese and the under privileged and undernourished, and the floods and droughts, peak and extreme temperatures, urban conglomerations and rural villages coexist simultaneously. India, being the largest country, still relies on imports for 70 percent of its edible oil consumption, is of grave concern, when there is a possibility of sustainable achievement. The availability of agricultural land, irrigation facilities, human capital and above all the need for production is there. The edible oil imports may go down if migration of farm labor is eased. We can see large coconut farms in Kerala and other coastal belts. But due to shortage of labor, full potential yield from those farms is not there. The monkeys menace discouraging ground nut, sun flower cultivation. Though imports of edible oils is on rise, there are few commodities that have significant positive growth in exports are wheat, Soya meal, Cereals, Rice, Spices, Cotton, Sugar, Vegetable fresh and processed and also Alcoholic Beverages. Research on alcoholic liquor production is also not up to the mark. As India is capable of producing sugarcane in 48000 km² area (Prakash Gowda et al.,2022), which is the most efficient bioenergy crop (Yin et al., 2023) there is lot of scope for liquor manufacturing large scale production can also be planned. Around 360 million metric tons of cereals and 46 million metric tons of pulses/year will be needed to feed India's rising population by 2050 as per "Vision 2050", published by the National Centre for Agricultural Economics and Policy Research (2013).

As a result of excessive and uncontrolled soil erosion, deforestation, unsustainable agricultural methods – indiscriminate and over usage of chemical fertilizers and pesticides due to non application of farm yard manure (FYM) and indiscriminate extraction of groundwater, apart from urbanization, about 29 percent of the India's total geographical area is being degraded (Desertification and Land Degradation Atlas of India June, 2016). It is also relevant to mention that India is also vulnerable to all types of disasters including earthquakes, floods, cyclones, pest attacks and droughts. National Agriculture Disaster Management Plan (NADMP) for the Ministry of Agriculture and Farmers Welfare has been

visualized with the objective of strengthening resilience of farmers to cope with disasters and climate variability. Indian agriculture is subjected to huge economic losses. (Roadmap, NIDM). National Disaster Management Policy, 2009 has been framed keeping the objectives of promoting the culture of preparedness including prevention, and resilience at all of the levels by imparting knowledge, innovation, training and education and through encouragement of mitigation measures based on technology coupled with wisdom, marketing strategies and environmental sustainability.

With the enormous growth in the population in India, it has become the most populous country of the world, surpassing the China, which has reduced its population growth rate by about half from 2% in 1973 to 1.1% in 1983 (<https://www.bbc.com/news/world-asia-india-63957562>). This accelerates the need of food security and urgency in bringing the policy changes to achieve the same. East Asian countries such as Malaysia, Thailand, Korea, and Taiwan, which commenced population control programs later than India, successfully achieved lower fertility levels, reduced infant mortality rates, increased incomes and improved human development much earlier than India. Of course now India has largest population of youth. If planned properly India can become the world work force.

Even today, majority of agriculture production in India is rain-fed, except very few proportion of crop area that is irrigated by various means. Climate change is making monsoons and rainfall unpredictable in terms of intensity, duration and timing. As a result, rain-fed cultivation is affected. This effect is severe in South Asia including India. Total cereal production will decrease and causes food insecurity and hence leads to loss of livelihood. The rising levels of the sea will damage nursery areas for fisheries. In Telangana rural tanks became fish breeders in the recent past which is good sign for food security. Paddy (Rice crop) farms may also be planned as fish breeders. Agricultural land will decrease and the available land may not continue to be suitable for the present crops any more. Farmers have to explore the various options of changing crops depending on changing weather, which have to be aided properly by institutional support. (<https://www.indiawaterportal.org>). About 8.5% of the gross cropped area suffered loss in the floods of 2017 to 2019, which is very high. The intensity of floods and extent has been on increase in the country, due to excess rainfall combined with extremely heavy precipitation in a short span of time (DTE, 2019) About 18% of India's GDP and 50% of country's human capital is in the agriculture sector. This indicates the need of attention and focus on the agriculture infrastructure, without which the development in other sectors cannot be visioned or achieved, especially in India (Despande, 2017).

To meet the challenge of sustaining food production in the wake of changing climate, Government of India launched a flagship network project 'National Innovations in Climate Resilient Agriculture' (NICRA) in 2011, which is a multi-disciplinary and multi-institutional network project. The objectives of NICRA project include to strengthen the capacity of scientists and other stakeholders in climate resilient agriculture, and to draw policy guidelines for adoption of resilience enhancing technologies (NICRA,2011). NICRA is being

implemented in farmer participatory mode in 151 climatically most vulnerable districts of the India. The interventions covered by NICRA in natural resource management, crop pattern – for example advancement of planting dates of rabi crops where heat stress is expected, suggesting location specific inter-cropping system, advising climate change adaptation strategy for livestock and fisheries in respect of fodder production and storage. It also introduced institutional interventions, introduced climate literacy. Within six years of its inception, about 10,000 capacity building programs were organized to benefit 4.2 lakh stakeholders across India. The cropping season, its time period and various crops grown in the seasons and the Indian states, in which this is applicable, is given below in Table 1.

Table 1: Cropping Seasons and Crops Grown in India

Cropping Season	Duration	Crops Grown	States
Rabi Season	Sown during: October-December Harvested during: April-June	Wheat, Peas, Barley, Mustard, Grams,	Haryana, Punjab, , Himachal Pradesh, Uttarakhand and Uttar Pradesh, Jammu and Kashmir
Kharif Season	Sown during: June-July Harvested during: September-October	Rice, maize, jowar, bajra, tur, cotton, moong, urad, jute, groundnut, soybean	Andhra Pradesh Assam, West Bengal, Telangana, Tamil Nadu, Kerala and Maharashtra, Odisha
Zaid Season	between Rabi and Kharif seasons	Seasonal fruits, fodder, vegetables	northern and northwestern states

Source: Based on authors' study

Telangana is a recently formed state in June 2014, with the slogan of Water, Funds and Employment. The so far neglected economy, Irrigation, Power, agriculture and all infrastructural aspects need to be redesigned for its development. Through meticulous planning, strategies, apart from the construction of the Kaleshwaram, which is the largest lift irrigation project in the world, the state government is progressing in overall development including laying of Highways, increasing ayacut with mission Kakateeya and hence agri-products. Even the state went upto bagging awards in Swachha bharat activities. The agricultural and other procedures, which proved successful, to be adopted by the country by modifying to the local situations. To minimize labor costs, paddy nursery bed system is getting modified and seed is sown directly. Telangana State government has attempted to test the soils in large scale. Even the silt from tanks is also tested and then only dumped in to farms.

1.1 Objectives of the study

In this context, the study aimed to address the following objectives:

- To understand the climate change and its effect on agriculture production
- To examine the food security of the country vis-à-vis imports and exports, in agriculture.
- To explore agriculture infrastructure with the technological advancements.

- To explore and recommend various suggestions including paradigm shift in crop pattern so as to achieve SDGs envisaged.
- To explore rural and agro tourism
- To examine the Telangana State of India in detail in the context of the proposal.

2.0 Methodology

In the present study, exploratory method is followed and we analyzed the dynamic scenario of food security impacted due to climate change, food habits of growing population and examined the agricultural crop diversification, considering the Telangana State, India. The study is purely based on secondary data obtained through literature review of various official documents published, on the topic. The policy documents on agriculture related missions in India and Telangana State and research papers published during the last decade are examined to interpret the current and future agriculture scenario in India and Telangana State. A total of 12 policy documents, and 15 research articles were summarized in the study. Agricultural experience of the authors, interviews with the farmers and land owners, on the issues have been an addition to the discussion. The interdisciplinary approach makes the study, unique and novel in the field. Innovative concepts, suggestions have been incorporated, some of which needs research and discussion, before being implemented.

2.1 Study area

Telangana is a newly formed state in 2014, Telangana, situated in the Deccan Plateau in Indian Peninsula and twelfth-largest state having 114,840 km². The Irrigation water in Telangana is drawn from two semi perennial rivers, with 79% of the Godavari River and 69% of the Krishna River catchment areas. Minor rivers such as the Bhima, the Manjira, the Musi, Munneru, Maneru and about 40000 village tanks are also there. The study area is shown in Figure 1. Total geographical area of Telangana is 1,12,077 km² half of it is gross cropped area.

About 24 per cent is under forests and 7.7 per cent is under other uses. Telangana cultivates various crops including Cotton in 18130 km², Rice in 14190 km², Maize in 6630 km², Pulses in 6110 km² along with Groundnut, Chillies, Sugarcane. About 79% is in Kharif (vaanakaalm panta) and the remaining 21% is cultivated in Rabi (yesangi panta) seasons. Agriculture contributes 13 per cent to the state income and nearly 56 per cent of Telangana population depends on it.

Previously agriculture in Telangana was rain dependent and its distribution. But after Kaleshwaram project, Mission Kakateeya, the farming is partially freed from rain fall. Nursery beds are grown even in midsummer. The influence of South-West monsoon, which contributes 79% is major source of rainfall and is from June to September, Whereas the North-East Monsoon is from October to December. Kaleshwaram, the largest multi-stage lift irrigation Project of the world is built on the Godavari River in Kaleshwaram, Telangana,

India. Based on climatic parameters such as Rainfall, Soils and cropping pattern, the state of 33 districts is broadly divided in to three agro-climatic zones, which are shown in Figure 2. Assuming a moderate rain fall for continuously five years or 3 years severe drought, in such situation also Telangana may not be affected much in Agriculture. The agricultural planning for each zone is supported with the research and recommendations of Regional Agricultural Research Stations of ANGRAU setup within each zone.

Figure 1: The Study Area

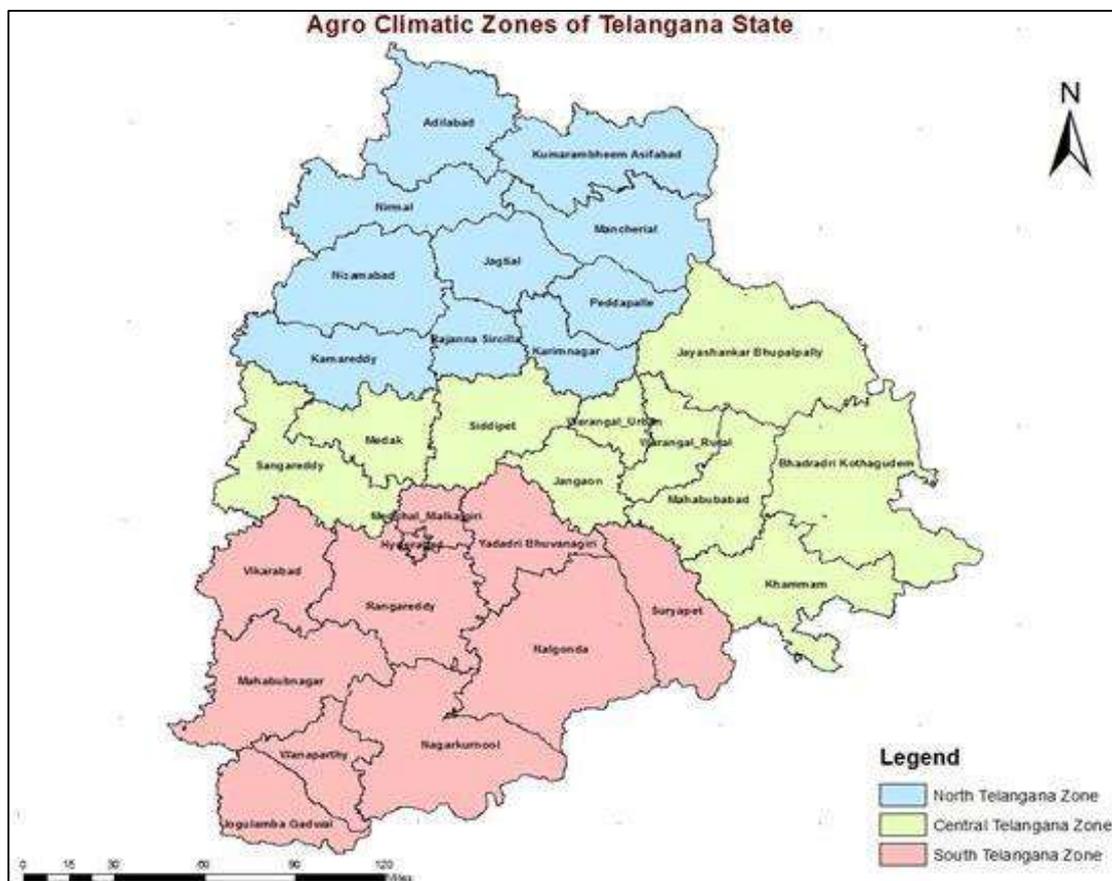


Source: <https://pjtsau.edu.in/agro-climatic-zones.html>

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Figure 2: Agro-climatic Zones of Telangana



Source: <https://pjtsau.edu.in/agro-climatic-zones.html>

3.0 Discussion

According to Directorate of Economics and Statistics, Government of Telangana, cropping pattern was shifted since 1980 to non-food crops in Telangana state. From 29% non-food crops in 2001-02, now increased upto 47% in 2015-16. Wheat recorded good growth and earnings of export increased from Rs. 425 Crore to Rs. 3283 Crore and other cereals recorded a growth from Rs. 1318 Crore to Rs. 4542 Crore. India has seen a tremendous growth of 727 % in respect of Wheat export and also 132% growth in export of Rice.

Genetically modified (GM) seeds offer resistance to pests and herbicide, there by yield high productivity. While the advantages of GM seeds are more it should be cautious to use them. Genetic engineering should be seen as another discovery which has a lot of potential for developing and developed countries (Batista, R., & Oliveira, M. M. 2009). Sustainable Intensification (SI) as proposed by Pretty (2018) is a system in which agricultural

production is maintained or increased while enhancing environmental outcomes. SI incorporates no more land cultivation and without any additional environmental cost. Such type of systems should be embraced throughout the globe, to achieve SDGs. Zero budget natural farming propagated by Padmasri Subhash Palekar can also be encouraged which minimizes damage to basic ecosystem. Citrus is a very important fruit plant grown throughout the world for its great economic significance and also of tremendous value for nutrition and human well-being (Manuel Talon and Fred G. Gmitter Jr).

CRRRI has developed 105 varieties of rice in India and a suitable selection of rice variety is crucial to yield high production. Here In Telangana mango orchards are in promising number but menace of monkeys is an issue to be addressed. Food processing industries such as mango Jelly and pickle making should be in large scale with least dependence on sun light, as sun light drying is slow and also natural calamities such as sudden rain or gales damage the process. Further under the shade of mango orchards certain crops, fodder, mushroom can be cultivated. Dairy, poultry can also be considered for effective land use. The dung out of such farms, becomes natural manure which minimizes the use of chemical fertilizers and pesticides.

High crop diversification is followed in a major share of agricultural area of Telangana, India. This area is characterized by erratic rainfall and soil health and with a very low level of agricultural intensification. The Mahabubnagar, Rangareddy and Medak, which are close to Hyderabad, are less than 20 degree of diversification. Hyderabad being a metropolitan city requires more varieties of food items which makes these districts to grow different crops. As part of agricultural intensification, drip, sprinkler and AI enabled micro irrigation systems, organic cultivation have great scope in these areas. The three approaches to sustainable intensification of agriculture are improving efficiency, substitution and system redesign (Pretty et al. 2018). Impacts of the climate change in agriculture in Norway has been studied by Uleberg et al. (2014) and noted that, challenges such as increased autumn precipitation unstable winters, more weeds and more diseases, higher temperatures create new opportunities for agriculture in the region. This is to be supported by tailored adaptive strategies and breeding of new plant varieties. Changes in sowing calendar, hydroponics, green houses and crop rotation are some of the adaptive strategies, suggested. Economic incentives to the farmers play in crop choice in the crop rotation.

3.1 Paradigm shift in Culture

Government and Non-Governmental Organisations (NGOs) should make complementary attempts to achieve cultural change through behavioral modification in the farmers in particular and all the people in general. The 'Millet Mission' in India is an example, in this year 2023. The drought-resistant and pest resistant crops are to be promoted encouraging a paradigm shift away from water-intensive Rice and maize, across the country. The inclusion of millet in the Public Distribution System (PDS), and awareness drives, meetings, millet recipes in welfare hostels and other gatherings should be harbinger to change dietary patterns. Distribution of millet recipe books in local and vernacular languages will go

a long way. Fundamental shifts, deviating away from the status-quo are more difficult to implement, due to the resistance to change apart from political sensitivities. To encourage the use of millets, millet flour can be mixed with wheat/rice flour so that people easily adapt for it.

The indiscriminate use of fertilizers, pesticides is causing significant deterioration of soil health affecting the productivity. Using enhanced-efficiency fertilizer can avoid fertilizer-related water pollution by about 60%. Transition to more natural farming practices using domestic waste based manure, composting, while maintaining productivity and food security will be the target for the cultural shift. As water is available throughout the year, to cope up soil health green gram, jeeluga etc may be sown in summer or before sowing of targeted crop. Four decades back, natural manure in the way of green manure, accumulated house hold waste, including cattle dung and other organic waste used to be supplemented as good fertilizer. This reduces the usage of chemical fertilizers, saves energy saving, friendly to the environment and above all sustainable. There is practice of leaving cattle for grazing during summer. This is causing great damage to farmers' because their farms are to be kept idle or provided with perfect fencing. This adds to the investment for the farmer. The state government should take care of cattle grazing. The urbanization and shift in culture, usage of plastics and polythene covers all made it the process extinct from rural areas too and vicious cycle initiated. The World Bank Group's Climate Change Action Plan (2021-2025) is aimed at technological interventions to enhance the crop productivity, improve resilience, and to reduce Greenhouse gases (GHG) emissions. The Action plan helps in avoiding food loss and waste and also control flood and drought risks. Hope the bio-degradable plastics come in near future. FiloPack is bio-degradable, a new product from ITC's Paperboards which is recyclable, compostable paperboards. FiloPack is used to make eco-friendly paper plates and trays.

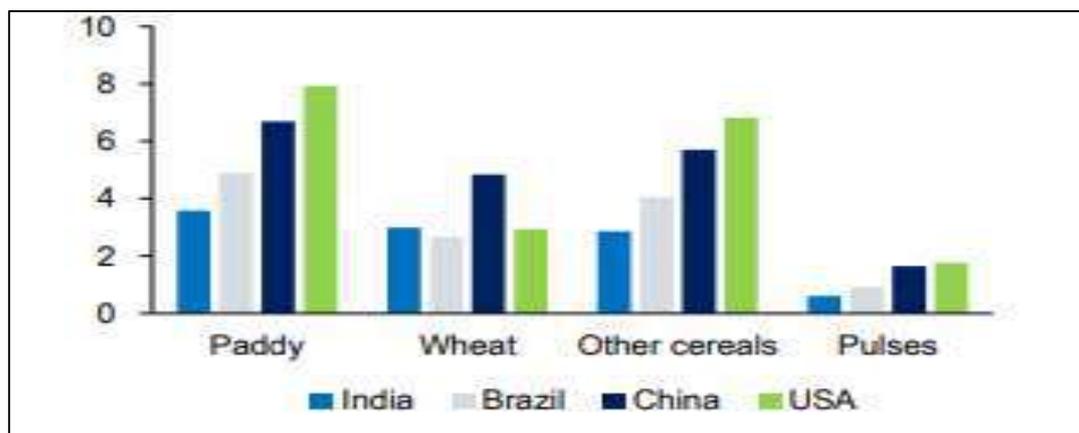
There should be a great change in crop pattern. Instead of Rice crop (Paddy), preference should shift towards millets, pulses, oil seeds, coconut, Palmolive, banana, bamboo, veggies, green banana, sugar cane, root vegetable crops, fodder etc. This shift brings a healthy change of reducing imports burden of oils, pulses and also use of water. Millets so produced also to be distributed to social welfare hostels, fair price shops etc. fodders production should be helpful in live stock and dairy. This rise in dairy products can be meant as buffer to cater to the hunger needs in crisis and also can be exported to the needy countries where intense hunger prevails. Further the live stocks so produced act as promoters of soil health and is step towards organic farming.

Stringent organic farming certification may not be viable but a good soil health and reduced pesticide may make the products partially organic. In veggies if we think of pumpkin, ash gourd, green banana, fruit banana, jack fruit, organic production is quite possible because they naturally come with good soil health. For marketing these vegetable and encourage usage, the culture and food festivals can be a good platform. The urban population naturally moves to villages during Dasara and Pongal times. Those occasions must be used as publicity

and marketing time. Some more rural festivals may be promoted and these rural festivals must be elevated as international events with many new folk singers, music artists, food makers, dress designers. Village water tanks with reasonably good tank bund attractions, “palleprakruthivanams”, rural nurseries, now a days, a government policy in each and every village, can be another special attraction of visit. Soft ware, IT must work out to plans for effective marketing. Even we can think of Rural Goshalas with accommodation can be place of attraction for some people. All this is possible with good law and order. Another issue to be addressed is labor problem. There can be out sourcing agencies to bring labor from CG,UP,Bihar, WB,Jharkhad, UK etc. Where ever there is great hunger, it can be a source of labor for us and we will be give solutions to resolve hunger.

In India, the net yield of the crops is very low, as seen from the figure 3 (Jennifer Burney and V. Ramanathan, 2014). Yield of any rice variety depends on its optimum time of sowing and harvesting. A thought to be made to go for government nurseries for paddy because of assured quality of seed and effective nursing with scientific and controlled methods. This also provides employment in rural areas.

Figure 3: Yield in Different Countries in Tonnes/Ha



Source: Food and Agriculture Organization of the United Nations.

Solid waste management and air pollutants will affect the vegetation near to the source of its emission and surrounding urban centres, but depending on the local meteorology -wind velocity, it is transported and affect the nearby agriculturally rich rural areas, damaging the crops (Richa rai et al. 2014). The air pollutants cause some deleterious effects on plants metabolism owing to their oxidizing potential.

3.2 Successful practices in the study area

The popular rice varieties suitable to different ecologies are: Vandana, (RR 167-982) tolerance to drought, seasonal resistant Satabdi (CR 146-7027-224), Satyakrishna (CR AC

2221-43) suitable for shallow low land irrigated area, Phalguni (CR Dhan 801) has slender grains and high yield of 5 to 6 tonne per hectare, Swarna Sub-1 (CR AC 2539-1) which can tolerate complete submergence for 14 days suitable for flash flooded coastal regions, Sarala (CR 260-77) which tolerates submergence of half meter depth of water, Durga (CR 683-123) tolerates submergence of one meter depth of water (https://crri.icar.gov.in/popular_var.pdf). RNR 15048 the Telangana sona, which can be raised in both kharif and rabi seasons in a short duration of about 125 days has low Glycemic Index (GI) of 51.5 percentage compared to other varieties (the Hindu 26th April, 2016). Few high yielding, pest and disease resistant rice varieties have been released by the Regional Agricultural Research Station (RARS) Warangal since 1974. They are Kakatiya, Surekha, Pothana, and Divya.

Further in 1990s Erramallelu, Kavya, Bhadrakali, Orugallu, Shiva, Keshava, are released. Now Varalu, Warangal Samba and Warangal sannalu and Ramappa, Siddhi, and Sheethal are also released which are pest resistant and high yielding rice varieties, successfully grown in this north agro climatic region of Telangana. For getting more income, Baasumathi (SCENTED RICE) is to be grown and marketed by farmers. Having tie up with hotels, restaurants, caterers and hostels. Telangana government is further emphasizing on multidisciplinary science and traditional based methodologies – natural resource management, crop production, crop protection, farm mechanization and value addition etc. which optimize resource utilization simultaneously which are cost effective to ensure good returns to farmers. Pigeonpea, bajra and ragi were found better than maize on rainfed Alfisols in Medak district of Telangana. Intercropping for example sugarcane with coriander/Clusterbean/Bhendi gave better returns in North Telangana zone. Crop rotation of Soyabeen-Maize-soyabeen-maize showed maximum yield. Zero tillage maize is being adopted which resulted in soil fertility. Technology of drip irrigation and fertigation resulted in augmenting the tomato productivity. Green house farming is also promising for some crops especially for vegetables

Dharani in Telangana, which is introduced as land reforms and land records data base, is impacting positively on the farmers, land owners, for a transparent land transfer system. The Raitubandu, meaning relative of farmer, scheme, is proved to be very effective and should achieve good results, if implemented with some good initiatives. Here considerable land is still in the name of erstwhile land lords. The govt of Telangana is expected to work out a method for such land transfer to real owners of today. The koulu system (farm land lease) is also to be modified. The koulu raithulu (farmers who took land on lease) must be given some incentives without causing loss to land owners. The government must act as liaison between land owners and farmers on lease. This assurance certainly enhances the productivity. Further crop loans should be much more stream lined and be given in time. Banks and government must come forward to assist enthusiastic farmers by giving loans in time. Repayment system also should be such that either banks or farmers are not badly affected. If the farmers pay back loan in time maximum incentives may be given. The government and private employees should be encouraged to take up farming as alternate

source of income. E-Bhoomi project in Karnataka type of land management schemes are good measures for small and marginal farmers, to keep abreast in using technology in agriculture industry.

As mono cropping creates biotic and abiotic stress on soil, crop diversification is better solution for sustainability, which should be understood well by the local farmers for its successful implementation. Crop diversification changes mainly due to availability of irrigation facilities such as availability of fertilizers, lift irrigation facilities, fertile soil, adoption of fertilizers and mechanization of agriculture etc. S.C Batia crop diversification method can be better followed. Crop pattern changes, in low diversified areas leads to environmental problems such as groundwater depletion, soil fertility loss, and even causes water logging. Hence high diversification needs to be encouraged (Kamaraju et al.2017). Crop substitution and shift are also suggested. For example, the growing of rice in high water table areas substituting with the oilseeds, cotton and pulses worked well. In Cotton, maize is a good example. This also helps in other way. Even if one crop fails, farmer may get benefit in other. Similarly in ground nut, red gram may work out well. Even in paddy, there is scope for red gram along the boarder bunds. State Government can control the crop pattern according to the demand and supply, plant and soil health, to suit to the climate variability and pollution levels and even suggest the variety of seeds to be used, to get more yield.

4.0 Implications of the Study

It is observed that, if the cash crops like coconut, pulses, oil seeds are cultivated in combination with regular crops such as paddy, then India can reduce the burden of imports upto some extent. Gradually, India will be in a position to export these cash crops. The reduced paddy should be replaced by millets. The economical implications involved, reducing imports thus making India self sustainable and even increasing the imports to get foreign exchange etc. are to be critically examined for the benefit of multiple stakeholders. The dietary culture should gradually shift India's staple food of rice, wheat to millets and other healthy grains. This would also help control the deteriorating health of youth in particular and all in general.

Short term mitigation measures include strengthening the Public distribution system PDS with the reduced staple foods, including healthy millets and ensuring minimum calorie food supply to all the citizens. Intelligent use of fertilizers and limited use of pesticides, ecofriendly practices in packing and transportation, distribution system should be encouraged. Menace of rats, is the major cause for net yield of crops, during harvesting as well as during preservation of grains in godowns, which can be controlled by following appropriate methods. Pythons are expected to be rat eaters. Since Pythons cannot cause much serious problems for human beings they should not be killed any more so as to control the problem of rats. Crop diversification, crop rotation based on recent research by ICAR through NICRA will certainly improve soil fertility and increase yield per hectare. The farmers should be educated by involving NGOs and various governmental departments, for following such good

practices in agriculture management. Rice-Wheat Crop Manager (RWCM) is developed by IRRI and is an information and communications technology (ICT) oriented web-based decision-making tool which facilitates irrigated and rainfed rice farmers with the personalized crop management recommendation for increasing rice production and also income (Mishra, A., & Sharma, S. 2022).

Long term mitigation measures, such as combined cropping of various food and cash crops, fodder crops and food crops, so as to increase the country's livestock and milk production. Rural and Cultural tourism should be created and marketed by the government. The rural cultivation methods, farm houses and recreation facilities to be created. These facilities help the busy, work stressed employees and business persons by way of compulsory leave travel or voluntary tours, to regain health and recreate for some time, thereby energized. Yoga and music camps, promoting folk arts in these rural areas, will go a long way, in achieving the health to all. Redistribution of national agricultural land to all the citizens, will be a gigantic task, thereby land ownership increases the yield instead of farmers working as labor. The greenery development programs make India restore the climate to the normal and thus rainfall prediction will be appropriate and accurate, which is main cause for yield loss in almost all the crops. Barren land should be identified and brought under cultivation of crops, which were so far imported from other countries. Oil seeds production is much less in India and need is ever increasing. These vegetable oil seeds should be self sufficient, so as to make the country developed. The agriculture should shift its focus duly reducing the paddy and making new area irrigated. The flash floods should be well harnessed and utilized for the irrigation by apt methods and each and every water drop should be used to its fullest level. The castor oil which is not fit for edible may be made edible by appropriate processing by making it safe, which certainly reduces the import of edible oils to India..

The preservation of culture and tradition with updated technology may work out to market rural crops and talent. For ex Dasara or Bathukamma can be celebrated attracting urban people from within and outside the country. This helps promote Rural and cultural tourism and enables some employment and revenue to the state. These festive and celebrations are occasions to involve and encourages the folk dance composers, lyric writers, singers, folk music composers and musicians, video graphers etc. It also results in de migration from the urban centers, which is one of the causes of climate change. This can be an occasion to market rural farm products. Credit for inputs, seeds, fertilizers, and chemicals, may be given if farmers explicitly or implicitly agree to cropping patterns or only for certain crops, prescribed by the government on the basis of agricultural research (Fawaz M. Shousha, 1997). It is concluded that, interdisciplinary approach is required to achieve the SDGs through climate resilient agriculture, practicing sustainable and eco-friendly methods in India and other developing countries, duly bringing change in the farmers through supportive mechanism and proper education and training and achieving a cultural change on par with climate variability, for survival of the mankind.

Last but not least, model agro/horticulture farms are to be developed in different parts of the country so as to mobilize people to adapt new and sustainable practices. For this all peoples representatives should take initiative.. The agriculture/horticulture/ dairy graduates may be encouraged for this work. Their success becomes success of society.

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A Study of HRM Practices for Sustainable Retailing Management with Reference to a Select Organized Retailers

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ABSTRACT

The Human Resource Management is a critical area for sustainability of an organization. It is also very much applicable to retailing management. It is contributing to Indian's GDP around 10 percent and providing jobs to 8 percent of India's human resources. The objectives of this study include to assess the HRM practices adopted by these three organizations located in Hyderabad, to bring out the challenges and issues confronted by the HRM in these organizations while adopting these HRM practices and to advise certain measures so as to resolve these issues for better sustainability. Some of the major practices considered for this study include payment of salaries, providing good environment and so on. At the end of the study, it was concluded that most of the employees of these three retailers have very good opinion towards the HRM practices adopted by these three organized retailers.

Keywords: *HRM; Practices; Sustainable; Retailing and Organized.*

1.0 Introduction

An Excellent Human Resource Management and its practices, strategies, policies etc. are very much essential for the survival and growth, by leaps and bounds, of any commercial organization. Hence, the management needs to focus upon the Human Resource Management and its practices, strategies, policies etc.

The retail sector is a pillar of Indian economy. It contributes 10 per cent of GDP, jobs to around 8% Indian workforce and so on. Since it is very much essential for Indians and Indian economy, it has to sustain very much. In the process, many good practices have to be taken up in various functional areas of management such as HRM, Marketing management, Production management, Finance management and so on.

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This research paper mainly aims at studying the HRM practices adopted by three organized retailers located in Hyderabad, namely DMart, Reliance Fresh and Ratnadeep supermarket. It focused upon the HRM Practices such as offering good salaries and benefits to their employees, initiating good skill development programs, ensuring job security, maintaining good culture and programs, enabling employees maintain good work life balance, offering very good job satisfaction, implementing very good appraisal and promotion policies, providing very good career growth opportunities, maintaining very good diversity and inclusive environment, providing very good supportive environment and offering very good job satisfaction to their employees. 216 employees of these three organizations were surveyed for the sake of this study.

1.1 Objectives of this study

This research papers emphasizes upon the HRM practices adopted in the select three retailing organizations located in Hyderabad. The objectives include the following:

- To understand HRM practices in a select retailers
- To evaluate the agreeability of employees of these retailers towards the select HRM Practices
- To suggest the suitable measures to withstand the issues and challenges while practicing these select HRM policies

2.0 Review of Literature

Even though the HRM is a great element of modern day organizations, the Human Resource Management confronts a lot of challenges very frequently. According to the studies of Singh and Dhawan (2013), after acquisition of skilled and suitable human resources, developing and retaining them is a herculean task. Due to a very competitive environment, the right talent is attracted by the competitors with great offers in terms of competitive salaries and other benefits. According to another study by Francis, Ikemefuna and Mbah (2011) it has been identified that multi-tasking is a major challenge confronted by the HRM because dynamic environment requires people to be generalists rather than specialists in certain areas. The retailing entrepreneurs and management have to take up many jobs and roles in order to sustain and grow consistently. Many researches have been taken up to trace out the factors which hinder the optimum growth of retailing sector in India.

Apart from the branches established by the organized retail chain stores, even franchises play a very vital role in retailing. This has been proved by the studies made by Truss (2004). Even the franchisees depend on the effective and efficient human resources to a great extent for the growth of not only themselves but also the franchisers. Even the entry of multinational organized retailers in India and their multidimensional growth in India emphasized the key role played by the appropriate Human Resource Practices. Eminent people like Chakraborty (2007) has conducted many studies to evaluate the latest practices in

Human Resource Management in retail sector which are supporting the Indian retail sector in its phenomenal growth. His studies even brought out the latest practices adopted by the HR Management and the challenges encountered by HR Professionals while taking the support of various kinds of HR professionals in the growth of Indian organized retail sector.

The studies conducted by Khillare and Kamble (2016) have brought to limelight various problems faced by the HRM in the Indian organized retail industry. Those problems encompass semi literacy, semi-skilled workforce, very high turnover and the competitive HR offers and so on. A lot of things need to be done to overcome these problems. They include sponsoring the education and training of HR personnel, paying competitive salaries and offering competitive benefits etc. One of the eminent authorities in HRM, Dr Rao (2008) highlighted the challenges faced by HR Management in the book entitled-Human Resource Management. Those challenges encompass dynamic expectations of employees, composition and size of the workforce, dynamics in socio-cultural aspects of employees, globalization, technological advancements and so on and so forth.

The research conducted by Rutherford, Buller and McMullen (2004) brought to day light the major challenge confronted by the HRM, i.e., delivery and maintenance of quality service. This challenge is due to lack of right quantity and quality of HR personnel. Sohel and Roger (2002), in their studies, assessed the HR practices prescribed by P. Feffer with regard to industry and nation. They identified that these HR practices affected the performances of the HR personnel in various countries and nations. Bhatla and Pandey (2014) have brought to limelight certain issues and challenges confronted by the HRM in the organized retail sector. Those issues include less margins, inability to pay good wages and salaries, shifting the organizations, lack of skilled retailing employees, inexperienced human resources, diversity of personnel, incompetent personnel, strain and stress at work, inappropriate and inadequate training and development

McGuire and Cross (2003) have studied the relationship of competitive strategy vis-à-vis HRM. Their study focused the significance of retailing management taking competitive advantage. They also emphasized the importance of product positioning in the retail sector. They also stressed upon that the competitive strategies have phenomenal influence on the HRM practices adopted by the giant retailers. Their studies further highlighted that cost factors which are part of competitive strategies shall have significant bearing on the HRM practices of the organized retailers. The study made by Som (2006) highlighted the influence of competition of MNCs on the Indian organized retail sector. He has also stressed the significance of innovative HRM policies and strategies to be adopted by the Indian giant retailers to withstand the competition from the Multinational Corporations. According to this study, Indian retail firms, in order to be ahead against the competition from the international firms, need to plan and implement innovative, value based and fair HRM practices. Otherwise, the local firms lag behind the International firms in terms of sales revenue, profit margins, expansion, growth etc.

The studies of Lakshete (2011) emphasized that those retail firms which would identify the value and the key roles played by their human resources will have a definite edge

against their competition. Merkel, Jackson & Pick (2010) studies the challenges confronted by the HRM in the retailing management. They stressed the significance of professional and systematic HRM. They identified that retailing is a labour-intensive sector and hence there is great need for adopting good HR practices. They highlighted that the growth of retail firms is made possible by the combined effect of good HRM practices and competent and customer friendly human resources. Their studies also emphasized that the further growth of the organized retailers depend upon innovative and proactive approaches of their HRM as per the requirements of challenges in the environment. The research made by Singh and Mishra (2008) highlighted the increment in the HR challenges along the growth of the retail sector. They emphasized that HRM shall equip themselves in terms of attracting, nurturing and retaining their workforce to cater to the needs of the organized retail sector. They also threw light not only on the issues in HRM but also suggested the best HR practices to be adopted by the retailers in order to ensure that the retail firms confront the challenges effectively, efficiently and professionally.

3.0 Research Methodology

3.1 Research design

This study adopted convenience sampling method. 216 employees located in Greater Hyderabad, distributing among Dmart (85 employees), Reliance Fresh (72 employees) and Ratnadeep supermarket (59 employees) were surveyed.

3.2 Sources of data

A questionnaire was used to collect the data from the respondents. Text books, Journals, websites etc. were the sources of secondary. Questionnaire was divided into part A and part B. Part A was aimed at collecting demographic details and Part B was aimed collecting agreeability and perceptual details.

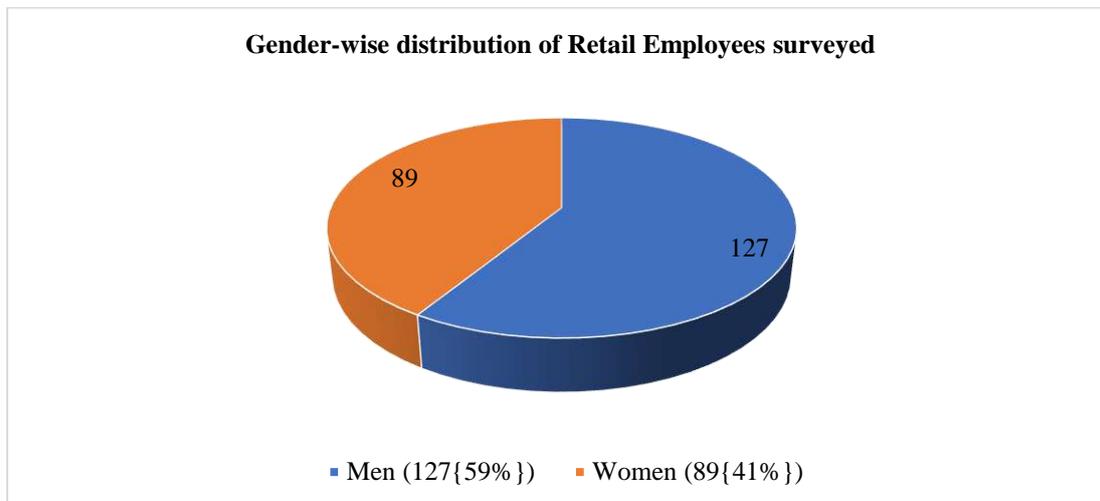
4.0 Analysis and Discussion

One-way ANOVA was the main tool used. In addition, tables, graphs etc. were relied upon for interpretation.

Table 1: Gender

Category	Number of People Surveyed	Percentage
Men	127	59%
Women	89	41%
Total	216	100%

Source: Analysis made for this study

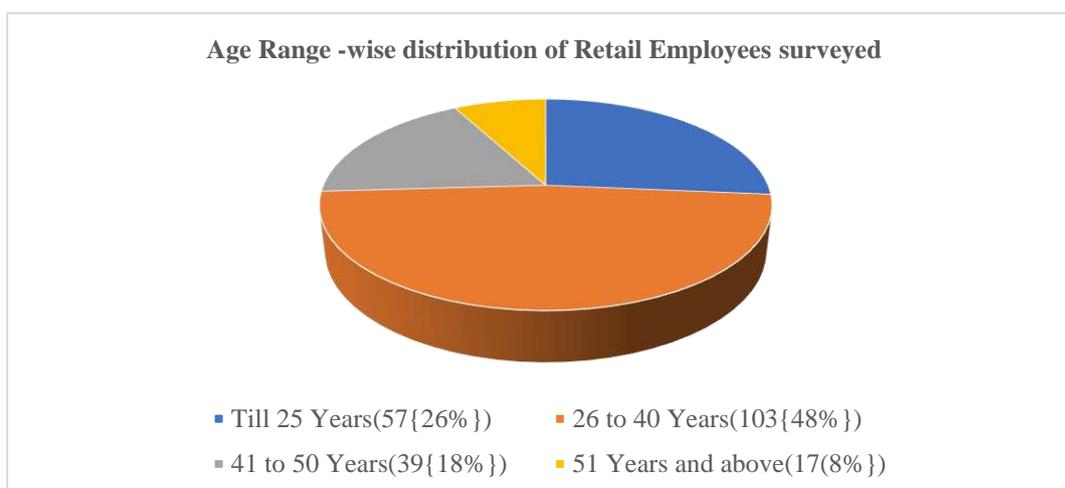


From the above analysis, it can be known that 59% (127) are Men employees and 41% (89) are Women employees who have participated in the study of HRM practices for sustainable retailing management with reference to a select organized retailers.

Table 2: Age Range -wise Distribution of Retail Employees Surveyed

Age Range	No. of People Surveyed	Percentage
Till 25 Years	57	26%
26 to 40 Years	103	48%
41 to 50 Years	39	18%
51 Years and above	17	8%
Total	216	100%

Source: Analysis made for this study

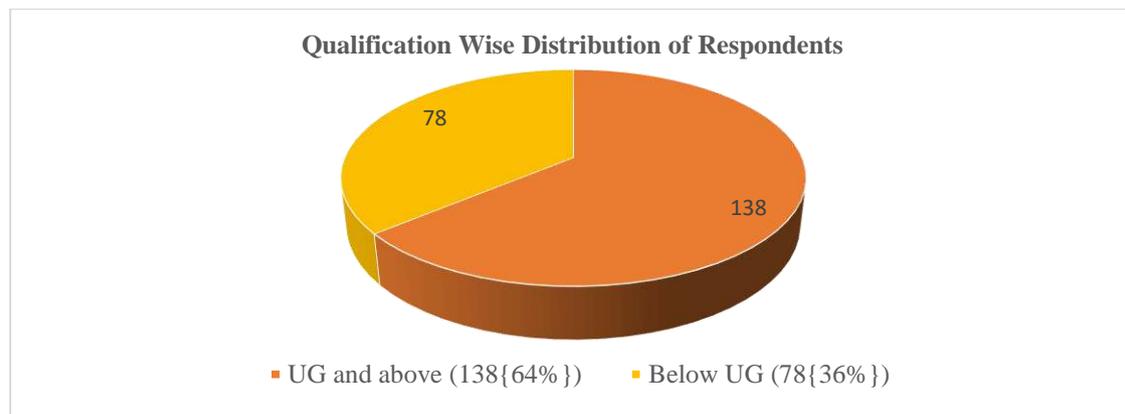


From the above analysis, it can be known that , in this study of HRM practices for sustainable retailing management with reference to a select organized retailers, 26% (Nos. 57) of employees surveyed are in the range of till 25 years, 48% (Nos. 103) of employees surveyed are in the age range of 26 – 40 years, 18% (Nos. 39) of employees surveyed are in the age range of 41 – 50 years, 8% (Nos. 17) of employees surveyed are in the age range of 51 years and above.

Table 3: Qualifications-wise Distribution of Retail Employees Surveyed

Qualification	No. of People Surveyed	Percentage
Below UG	78	36%
UG and above	138	64%
Total	216	100%

Source: Analysis made for this study

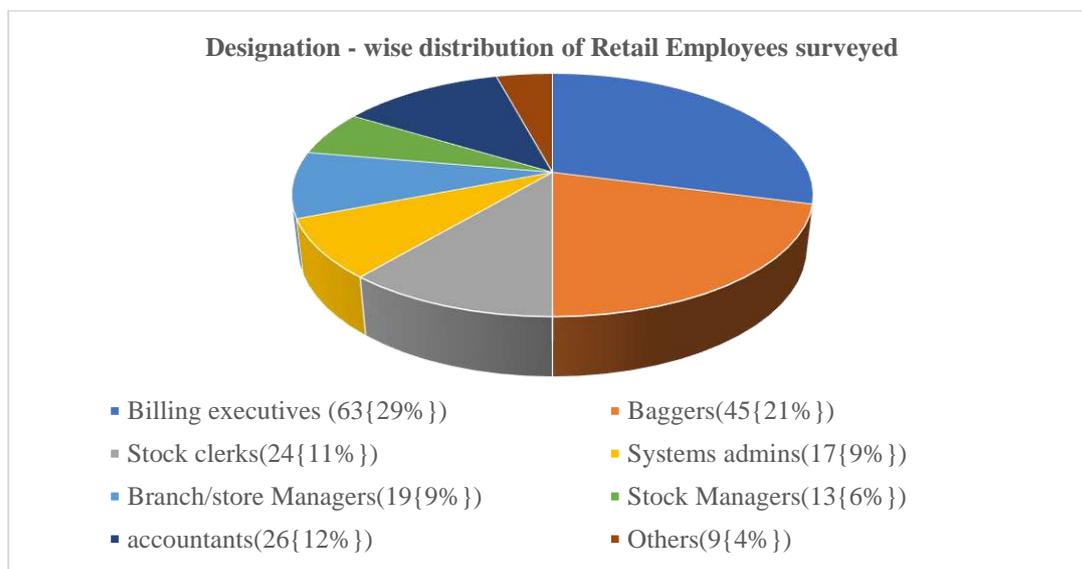


From the above analysis it can be noticed that 36% (Nos. 78) retailing employees have studied below UG and 64% (Nos. 138) have studied UG and above.

Table 4: Designation –wise Distribution of Retail Employees Surveyed

Designation	No. of People Surveyed	Percentage
Billing Executives	63	29%
Stock Clerks	24	11%
Branch/Store Managers	19	9%
Accountants	26	12%
Baggers	45	21%
System Admins	17	9%
Stock Managers	13	6%
Others	9	4%
Total	216	100%

Source: Analysis made for this study



From the above analysis it can be derived that, out of the retailing employees who have been surveyed, 29% (Nos. 63) are billing executives, 11% (Nos. 24) are stock clerks, 9% (Nos. 19) are branch/store managers, 12% (Nos. 26) are accountants, 21% (Nos. 45) are baggers, 9% (Nos. 17) are system admins, 6% (Nos. 13) are stock managers and 4% (Nos. 9) are other categories of employees.

Table 5: Monthly Salaries -wise Distribution of Retail Employees Surveyed

Monthly Salaries (Rs.)	No. of People Surveyed	Percentage
Till 10,000	49	23%
10,001-20,000	47	22%
20,001-30,000	56	26%
30,001-40,000	43	20%
40,001 & above	21	9%
Total	216	100%

Source: Analysis made for this study

The below analysis brings to our notice that, out of the retailing employees studied with regard to HRM practices for sustainable retailing, 23% (Nos.49) draw the salaries till Rs.10,000 p.m., 22% (Nos. 47) draw within the range of Rs.10,001- 20,000 p.m., 26% (Nos. 56) draw within the range of Rs.20,001 – 30,000 p.m., 20% (Nos. 43) draw within the range of Rs.30,001 – 40,000 p.m. and 9% (Nos. 21) draw Rs. 40,001 and above.

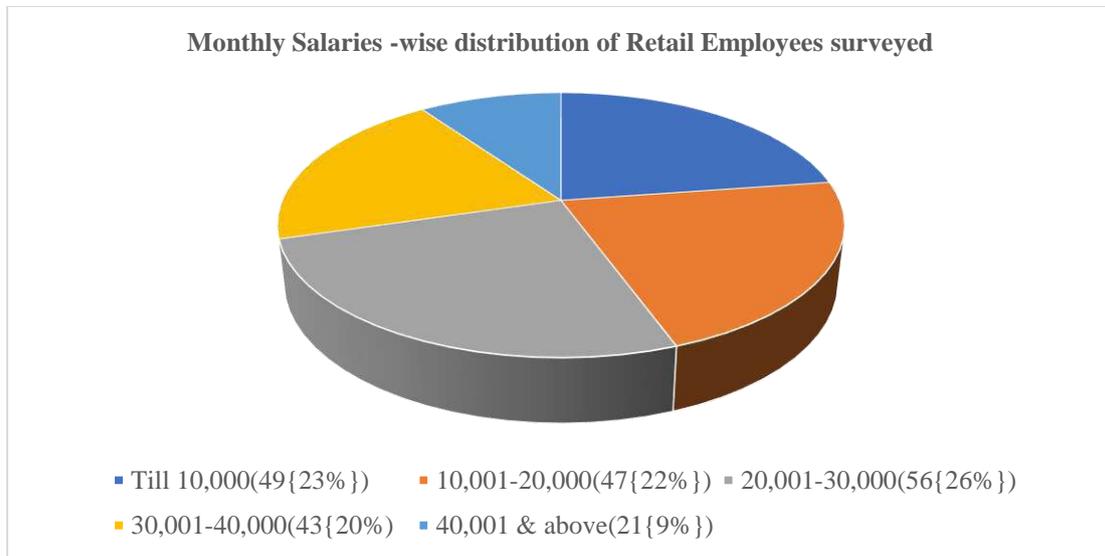


Table 6: Marital Status - wise Distribution of Retail Employees Surveyed

Marital Status	No. of People Surveyed	Percentage
Unmarried	112	52%
Married	104	48%
Total	216	100%



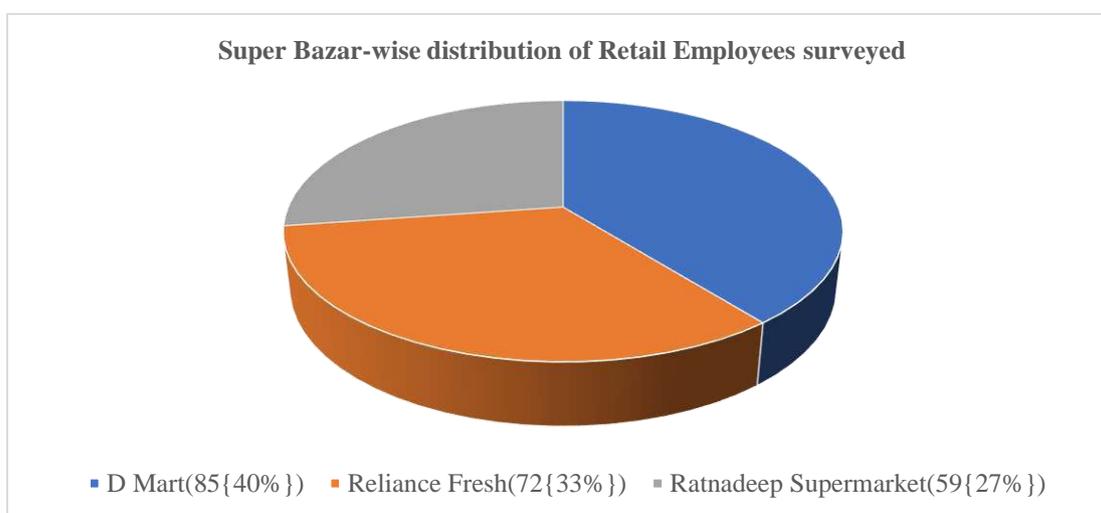
Source: Analysis made for this study

The table and graph cited above highlights that, out of the retailing employees who were studied with regard to HRM practices adopted for sustainable retailing management, 52% (Nos.112) are unmarried and 48% (Nos.104) are married.

Table 7: Super Bazar-wise Distribution of Retail Employees Surveyed

Super Bazar	No. of People Surveyed	Percentage
D Mart	85	40%
Reliance Fresh	72	33%
Ratnadeep Supermarket	59	27%
Total	216	100%

Source: Analysis made for this study

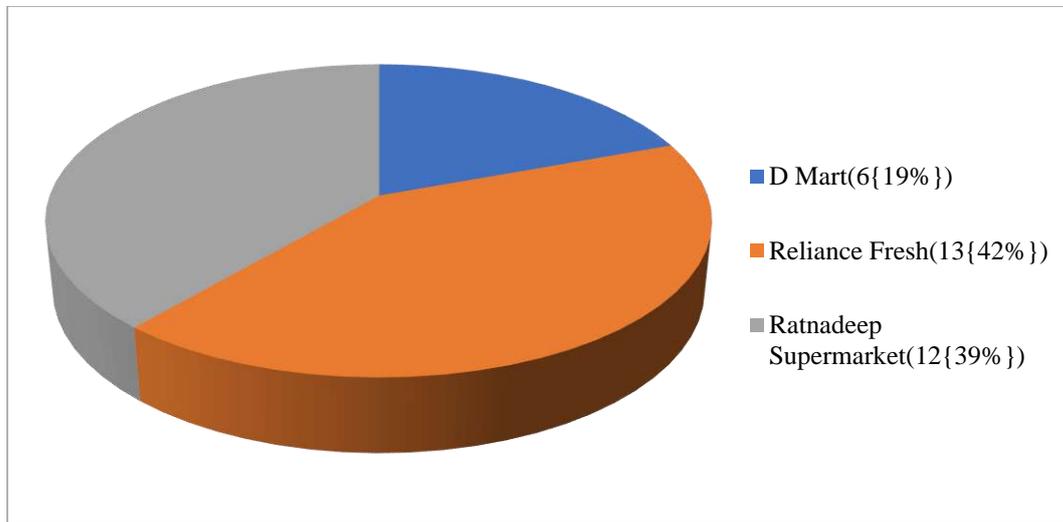


The above analysis signifies that 40% (Nos. 85) are working in DMart, 33% (Nos. 72) are working in Reliance Fresh and 27% (Nos. 59) are working in Ratnadeep Supermarket.

Table 8: Number of Retail Outlets-wise Distribution of Super Bazars Covered

Super Bazar	No. of Retail Outlets covered	Percentage
DMart	6	19%
Reliance Fresh	13	42%
Ratnadeep Supermarket	12	39%
Total	31	100%

Source: Analysis made for this study



The above table and graph signify that 19% (Nos.6) of retail outlets belong to DMart, 42% (Nos.13) of retail outlets belong to Reliance Fresh and 39% (Nos.12) of retail stores belong to Ratnadeep Supermarket.

Table 9: Distribution of Responses from the Retailing Employees Towards HRM Practices Implemented in their Retailing Outlets (Percentages)

S. No.	HRM Practice	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Excellent Salaries & Benefits are offered(ES)	11%	21%	49%	14%	5%
2	Excellent Skill development programs are initiated(SD)	10%	18%	31%	21%	20%
3	Excellent Job security is ensured(JE)	9%	21%	32%	22%	16%
4	Very Good Organizational culture & Values(CV)	29%	25%	19%	16%	11%
5	Excellent scope for Work-life Balance (WB)	26%	20%	25%	18%	11%
6	Very good Job satisfaction is offered (JS)	20%	35%	20%	19%	6%
7	Appraisal / Promotions programs are very good (AP)	21%	26%	27%	17%	9%
8	Excellent Career Growth/opportunities are provided (CG)	18%	28%	33%	15%	6%
9	Excellent Diversity & Inclusion environment provided (DI)	15%	24%	31%	22%	8%
10	Very good Supportive Environment is provided (SE)	22%	24%	25%	20%	9%
11	Overall satisfaction with HR Practices (OH)	10%	11%	62%	8%	9%

Source: Analysis made for this study

From the above table it can be understood that the retail employees have agreed maximum (Strongly agree and agree combined) towards ‘Very good Job satisfaction is offered’ (55%), followed by ‘Very Good Organizational culture & Values (CV)’ (54%), ‘Appraisal / Promotions programs are very good (AP)’ (47%) and ‘Excellent Career Growth / Opportunities are provided (CG)’ (46%).

They were not happy (Disagree and Strongly disagree combined) mainly with ‘Excellent Skill development programs are initiated (SD)’ (41%), followed by Excellent Job security is ensured(JS) (38%), ‘Excellent Diversity & Inclusion environment provided (DI)’ (30%), ‘Excellent scope for Work-life Balance (WB)’ (29%) and ‘Very good Supportive Environment is provided (SE)’ (29%).

When it comes to neutrality (neither agreed, nor disagreed), it is led by ‘Overall satisfaction with HR Practices (OH)’ (62%) followed by ‘Excellent Salaries & Benefits are offered (ES)’ (49%).

Table 10: Descriptive Statistics with Regard to HRM Practices

HRM Practice	N	Minimum	Maximum	Mean	Standard Deviation
Excellent Salaries & Benefits are offered(ES)	216	1	5	3.17	0.9804
Excellent Skill development programs are initiated(SD)	216	1	5	2.75	1.2426
Excellent Job security is ensured(JE)	216	1	5	2.84	1.1667
Very Good Organizational culture & Values(CV)	216	1	5	3.41	1.3611
Excellent scope for Work-life Balance (WB)	216	1	5	3.33	1.3254
Very good Job satisfaction is offered (JS)	216	1	5	3.46	1.1648
Appraisal / Promotions programs are very good (AP)	216	1	5	3.34	1.2326
Excellent Career Growth/opportunities are provided (CG)	216	1	5	3.36	1.1280
Excellent Diversity & Inclusion environment (DI) provided	216	1	5	3.15	1.1719
Very good Supportive Environment is provided (SE)	216	1	5	3.27	1.2839
Overall satisfaction with HR Practices (OH)	216	1	5	3.03	0.9784
Valid N (list-wise)	216				

Source: Analysis made for this study

From the table cited above it is understood that the highest is with reference to parameter-Very good Job satisfaction is offered (JS) (3.46), followed by Very Good Organizational culture & Values (CV) (3.41), Excellent Career Growth / Opportunities are provided (CG) (3.36), Appraisal / Promotions programs are very good (AP) (3.34), Excellent scope for Work-life Balance (WB) (3.33), Very good Supportive Environment is provided (SE) (3.27), Excellent Salaries & Benefits are offered(ES) (3.17) and Overall satisfied with HR Practices (OH) (3.03).

The mean scores are less than 3 in two areas. They include Excellent Job security is ensured (JE) (2.84) and Excellent Skill development programs are initiated (SD) (2.75). Hence, it can be concluded that the employees of select retail organizations are not satisfied in these two parameters and hence the select retail organizations are required to upgrade themselves in these two areas.

Table 11: Descriptive Statistics of HRM Practices with Regard to Retailers

Retail Outlets	Mean	N	Standard Deviation
DMart	3.74	85	0.3157
Reliance Fresh	3.06	72	0.3199
Ratnadeep Supermarket	2.57	59	0.3390
Total	3.19	216	0.5770

Source: Analysis made for this study

Mean scores in DMart and Reliance Fresh are more than 3 (3.74 and 3.06 respectively). Whereas, the mean score in Ratnadeep Supermarket is less than 3 (i.e., 2.57). It implies that the employees in DMart and Reliance Fresh are agreeable and positive with reference to the HRM practices adopted in DMart and Reliance Fresh, whereas the employees in Ratnadeep supermarket are not that much agreeable and positive with reference to the HRM Practices adopted in Ratnadeep supermarket.

4.1 Perception levels of employees towards HRM practices

Based on the ratings given by the retailing employees, the scores were determined as follows so as to evaluate the perception levels of employees with regard to HRM practices.

Table 12: Scores Derived from the Ratings Given by the Employees

Score	Value
Maximum Score	11X5 = 55#
Minimum Score	11X1 = 11#

Source: Analysis made for this study

#The questionnaire contained in 11 statements (1-5 scale) with regard to assessing the HRM practices in retailing firms.

Perceptions of retailing employees with respect to Human Resource Management (HRM) Practices include the following:

Table 13: The Range of Perceptions of Retailing Employees with Respect to HRM Practices

Perception Level	Perception Range	Number of Respondents	Percentage of Respondents
Very Good	41-47	51	24%
Good	34-40	74	34%
Average	27-33	72	33%
Below Average	20-26	19	9%
Total		216	100%

Source: Analysis made for this study

Note: There is no value between 11 and 19 and there is no value between 48 and 55

From the above table it can be inferred that the perception levels of retailing employees range from Very Good to Below Average. 24% of retailing employees surveyed had 'Very Good' perception towards HRM practices, 34% of retailing employees surveyed had 'Good' feeling towards HRM practices, 33% of retailing employees surveyed had 'Average' opinions towards HRM practices in their retailing firms followed by 9% of retailing employees surveyed had 'Below Average' opinions towards HRM practices adopted in their retailing enterprises.

Table 14: One way ANOVA Table Comparing Means of all the 11 Criteria with Respect to HRM Practices Adopted in Select Organized Retailers

			(SS)	df	MS	F	p
ES*	Between Groups	(Combined)	140.5093	2	70.2546	226.2074	<0.0001
	Within Groups			66.1527	213	0.3106	
	Total			206.662	215		
SD*	Between Groups	(Combined)	257.3444	2	128.6722	367.13753	<0.0001
	Within Groups			74.651	213	0.3505	
	Total			331.9954	215		
JE*	Between Groups	(Combined)	8.7193	2	4.3597	3.27057	0.039901
	Within Groups			283.9288	213	1.333	
	Total			292.6481	215		
CV*	Between Groups	(Combined)	18.6266	2	9.3133	5.22445	0.006095
	Within Groups			379.7021	213	1.7826	
	Total			398.3287	215		
WB*	Between Groups	(Combined)	23.0106	2	11.5053	6.90995	0.001237
	Within Groups			354.6515	213	1.665	
	Total			377.662	215		
JS*	Between Groups	(Combined)	26.501	2	13.2505	10.64228	0.000039
	Within Groups			265.2027	213	1.2451	
	Total			291.7037	215		
AP*	Between Groups	(Combined)	58.493	2	29.2465	23.23098	<0.00001
	Within Groups			268.1551	213	1.2589	
	Total			326.6481	215		
CG*	Between Groups	(Combined)	69.0551	2	34.5276	35.96342	<0.00001
	Within Groups			204.4958	213	0.9601	
	Total			273.5509	215		
DI*	Between Groups	(Combined)	85.6455	2	42.8228	43.51455	<0.00001
	Within Groups			209.6137	213	0.9841	
	Total			295.2593	215		
SE*	Between Groups	(Combined)	120.3576	2	60.1788	54.76212	<0.00001
	Within Groups			234.0684	213	1.0989	
	Total			354.4259	215		
OH*	Between Groups	(Combined)	42.111	2	21.0555	27.39282	<0.00001
	Within Groups			163.7224	213	0.7686	
	Total			205.8333	215		

Source: Analysis made for this study

On the whole, it can be concluded that 58% (Very Good and Good combined) of retailing employees have positive view towards the HRM practices adopted in their retailing outlets.

From the above table, derived by using one way ANOVA, in case of all the parameters used to study the HRM practices in select retail organizations, we find that $p < .05$. Hence, it can be inferred that there are differences in mean values of all the parameters across the three retail organizations selected for this study.

5.0 Findings of the Study

From this study it was observed that organizations were involved at very good HRM practices such as offering good salaries and benefits to their employees, initiating good skill development programs, ensuring job security, maintaining good culture and programs, enabling employees maintain good work life balance, offering very good job satisfaction, implementing very good appraisal and promotions policies, providing very good career growth opportunities, maintaining very good diversity and inclusion environment, providing very good supportive environment and offering very good job satisfaction to their employees. Out of the above ones, employees of these retailers are satisfied with the HRM practices with respect to job satisfaction, organizational culture and values, appraisal and promotion systems and career and growth opportunities provided. However, they are not agreeing with the practices such as skill development programmes initiated by these retailers, job security provided, diversity and inclusion provided, enabling work life balance and providing supportive environment.

They are neither agreed nor disagreed towards overall satisfaction with HRM practices and salaries and benefits offered to them.

6.0 Conclusion

The organizations, especially the select retail organizations, need to take care of many aspects with regard to functional areas, especially HRM. They have to initiative many good HRM practices for sustainability. In due course, they come across various kinds of challenges which they need to address effectively and efficiently. For sustainable retailing management, the Critical Success Factors include employee satisfaction, customers satisfaction and loyalty, promotion of retail branding and so on.

To have a sustainable retailing management, the management have to plan and execute very good and competitive HRM practices. They have to offer competitive salaries and benefits to their employees, initiate excellent and latest skill development programs, ensure excellent job security to their employees, initiate and sustain very good organizational culture and values, provide good scope for work life balance, ensure very good job satisfaction to their employees, adopt fair and equitable appraisal and promotion programs,

provide excellent opportunities for career growth, ensure excellent diversity and inclusive environment, provide very good supportive environment and finally they have to ensure that their employees overall satisfied with their HRM practices.

6.1 Future scope

This study was done with a sample to 216 employees in a select 3 retailing organizations with respect to 11 HRM practices. Since thousands of employees are engaged in retailing, it can be extended to thousands of employees in hundreds of organized and unorganized retailing organizations covering more number of HRM Practices for a very sustainable retailing sector. It can even be extended to other categories of retailing such as lifestyle, electronics and others.

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Examine the Importance of Personal Financial Planning and Financial Literacy Training toward Improved Personal Savings in PNG

N. Viswanadham, Mathew Kuusa**, Bomoteng Bapa*** and Cassandra Soi*****

ABSTRACT

This research paper discusses the importance of implementing financial planning and financial literacy to improve personal savings in Papua New Guinea. The main research question to assess the current saving culture in Papua New Guinea and identify whether Papua New Guineans have begun to consider it as useful and helpful in their financial lifestyle. This research study was to understand and identify how to increase or improve the financial literacy levels of individuals, how to influence the savings culture upon individuals in PNG and to implement more financial planning and management methods to improve the personal savings of individuals. This research carry out primary research through questionnaires and surveys that were sent out via Google forms. Financial literacy should be taught in High schools as a subject because they have now seen the importance of proper financial planning and financial literacy among people.

Keywords: *Financial literacy; Behavioral finance; Financial planning; Personal savings; Budget; Personal finance.*

1.0 Introduction

In today's changing global economy and complex financial environments, it is essential to save money or have some kind of personal savings set aside, personal savings is essential to build wealth and securing a stable financial future that allows people to feel financially safe when emergencies or unplanned expenses occur however, many people are held back by their financial literacy level. Throughout the world and especially in developing countries, a lot of people are struggling to save money because of their financial literacy level. Being financially literate or financially educated enables people to understand how, why, when, where, and what to save as a result, it is important that people are aware of personal financial planning.

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Personal financial planning is simply a comprehensive plan that safeguards people from unexpected spending which involves setting financial goals, creating budgets, managing debts, insurance protection, and investments. Therefore, in today's day and age, both personal financial planning and financial literacy go hand in hand to improve personal savings and create that habit of saving money. Personal Finance refers to the management of funds such as income earned, salary, or revenue coming in by creating budgets that can effectively help individuals to control their spending and investments. Understanding personal finance can include creating and planning to budget, knowing how to obtain funds, saving for early retirement, planning for taxes, and making informed decisions about possible investments.

As stated by Tara Siegel Bernard spending is as easy as pushing a button but the hard part is keeping money in your pockets thereby it is recommended that there are apps for budgeting to make it easier and more flexible for people to save more rather than spend more. Nowadays individuals are not aware of the importance of saving money and cannot create or plan a budget mainly because people are lazy or do not have the basic resources to create a savings culture for themselves. However, in an economy where it is rapidly changing it is crucial that people are aware that saving money is beneficial for themselves in the long run and understand that financial planning and management should be a priority in people's daily lives. As the economy fluctuates daily, it is evident that the prices of goods and services all around the world are increasing especially the prices of fuel and as a result, many individuals are struggling financially especially low to medium- income earners.

Many individuals due to a lack of basic financial literacy have been deterred from embracing moderate financial products, and making sound personal financial planning decisions (Hilgert, *et al*, 2003; Agnew & Szykman, 2005; Alessie, *et. al.*, 2007; Agarwal, *et al* 2007; Lusardi & Mitchell, 2005; 2007; Lusardi, 2008a; 2008b; Cory & Pickard, 2008), as well giving necessity of high focus and commitment to their financial plans.

The Bank of Papua New Guinea Governor, Loi Bakani has mentioned that "many Papua New Guineans lack a savings culture and continuously spend their earnings without the proper budget for savings and expenditure". In Papua New Guinea there is still a need to develop a savings culture, due to the high cost of living and high bank fees in Papua New Guinea, ordinary people cannot save and generally, a majority of the working class does not save money as well.

It has now come to the point where developing countries like Papua New Guinea must encourage their people to adapt to the savings culture by providing and conducting financial literacy training. Personal savings in Papua New Guinea is a huge problem mainly because of the current economic situation experienced all over the world and in Papua New Guinea which includes the negative impacts of Covid 19 affecting businesses, individuals, and the global economy as a whole. Negative impacts of Covid 19 such as people becoming jobless, price inflation on goods and services because of fewer resources available, businesses shutting down due to no revenue generated and even global markets crashing have caused individuals to face financial struggles as a result of the high costs of living. So there is a need for the study to understand financial literacy.

1.1 Objectives of study

- To measure the financial literacy levels of individuals.
- To identify the Influence the savings culture upon individuals in Papua New Guinea.

1.2 Significance of the study

Generally, the importance of this research study is essential for people so that they can make informed and educated financial decisions that will benefit them in the long run as well as this research will give people an insight as to how, when, why, where, and what to save.

1.3 To the government

The significance of this study is essential to the government because the government is currently encouraging people to develop a savings culture through commercial banks and National superannuation funds that Nasfund has provided for the people.

1.4 To the population of PNG

On the other hand, this study will overall help the general public and the population of Papua New Guinea by providing them with ways that can help them out of financial struggles and hardships. As the non-government organisations continue to partner with commercial banks to provide financial literacy programs, it has improved people's financial knowledge and as result, people are now more educated and aware before entering into any loan agreements and loan schemes.

Additionally, this study will showcase the specific types of people who are really in need of basic financial knowledge thus the research will further explain why individuals are not capable of saving money in PNG. The importance this research will benefit the people living in a developing country such as Papua New Guinea, where the economy is currently facing a rise in inflation resulting, in the prices of goods and services increasing drastically. In such circumstances many individuals will be struggling to save money actively because of the economic pressures however, this research will hopefully give insight and help people to learn how to save money as well as equip them with the financial knowledge to survive in such economic pressures.

2.0 Review of Literature

The research paper titled "Financial Literacy and Personal Financial Planning in Klang Valley, Malaysia" by Tan Hui Boon, HoE SIEW YEE, et al. (2011) where the research recommended that individuals who were yet to understand the concept of personal financial planning were restrained by their financial literacy level and were not able to successfully plan out their budget. As the research was carried out it was revealed that there was still a knowledge gap at the individual level that was hindering people from effectively managing

their financial affairs. Some studies about personal financial literacy concerning students show that students lack knowledge about finance (Chen & Volpe, 1998), students have a lack of knowledge about finance (Lutfi & Iramani, 2008), rates of financial literacy of students are not high (Beal & Delpachitra, 2003), rates of financial literacy of students are not optimum and categorized low (Ayu, et al. 2010).

There are both internal and external factors influencing personal financial literacy, which can be categorised as demographic/personal (Chen & Volpe 1998; Worthington 2006; Beal & Delpachitra 2003; Cude, et al. 2006;), social and economic characteristics (Worthington, 2006), financial experience (Mandel 2001; Peng, et al. 2007), financial education (Mandel 2001; Peng, et al. 2007), economic condition (Worthington 2006), family characteristics (Mandel 2001; Lusardi, et al. 2010) aspirations (Mandel 2001), and geographic location (Mandel 2001). The factors that are analysed are demographic characteristics, financial education, and financial experience.

The elements categorised as demographic characteristics are gender (Beal & Delpachitra, 2003; Chen & Volpe, 1998; Mandell, 2001; Worthington, 2006; The Social Research Centre, 2008, and Ayu et al., 2010), age (Ayu et al., 2010; The Social Research Centre, 2008; Worthington, 2006; and Roy Morgan Research, 2003); marital status (Roy Morgan Research, 2003), level of education (The Social Research Centre, 2008; Worthington, 2006; and Roy Morgan Research, 2003); year of entry (Chen & Volpe, 1998; and Cude et al., 2006), faculty (Beal & Delpachitra, 2003; Chen & Volpe, 1998; dan Ayu et al., 2010), GPA (Cude, et al., 2006; dan Ayu, et al. (2010), Level of parents' education (Mandell, 1998), average parent income per month (Lusardi, 2010), place of residence (Mandell, 2008), experience (Ayu, et al., 2010; Chen & Volpe, 1998; The Social Research Centre, 2008; Beal & Delpachitra, 2003; and Worthington, 2006), and experience in business (Worthington, 2006).

Some of the studies focus on personal financial planning where effective financial management and proper financial planning such as budgeting or allocating funds are considered to be the factors that contribute to the improvement of personal savings whilst others focus on personal financial literacy levels of individuals where there is a lack of financial understanding and knowledge. For new entrepreneurs still have seed capital challenges in developing countries (N. Viswanadham, 2017) According to Binoy Thomas, P. Subhashree (2020) that there is a need to provide training on financial education to increase or improve the financial literacy levels of individuals. Furthermore, the article focuses on identifying and assessing the various factors that influence engineering students in particular and as per the research, the study has discovered that the financial attitudes of each individual, family influence, and peer group pressure are the factors influencing the financial knowledge as well as the financial literacy levels of individuals among the engineering students. Therefore, it is suggested that all individuals should undergo financial literacy training and programs to equip them with the needed financial knowledge and skills to make better and informed financial decisions. This article displays the factors that influence or improves the financial literacy levels of individuals specifically

engineering students so that it would instill the financial confidence that will empower them to explore unlimited entrepreneurship endeavours should they wish to.

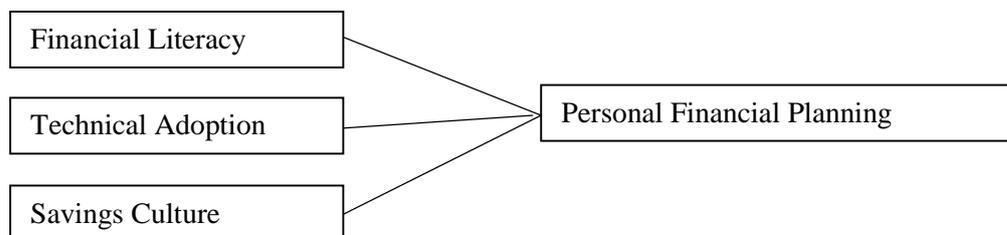
3.0 Theoretical Framework

Planned Behavioural Theory is the most relevant theory that can be linked to the research topic of this study because one of the challenging issues is the lack of life cycle planning and the interest to save money. This theory is referring to the idea that all behaviours are learned through interaction with the environment, this theory states that environmental factors highly influence the behaviours of people and how individuals react to certain situations. This type of theory studies how individuals interact in the environment thereby, carrying out the study with the use of behavioural theory will allow the researchers to understand how individuals react when there is no proper financial planning, management, and low financial literacy levels. It is one of the challenging issues in how understanding the strategic behaviors of humans because human attitudes are different. This theory in particular can be a very effective teaching strategy that can be used alongside financial literacy training as well as this theory can observe and measure behaviors and is easier to quantify or collect data when conducting research but some of the aspects of behaviour theory can be considered immoral and do not get to the core of behavioral issues.

The sociological theory which can be linked to the research study shows that many individuals are highly influenced by the people within their social environment therefore, this theory must be adapted to clearly understand the social aspect and social lifestyle of individuals because that is mainly the reason why many people spend money on their social needs and desires rather than saving money. Also, the sociological theory establishes the link between general sociological orientation and the findings of empirical findings, this theory is also responsible to produce a rich and meaningful hypothesis. However, one of the challenges with sociological theory is that it is highly subjective as is evident by the variety of different perspective that is available within the social environment itself.

4.0 Research Gap

Figure 1: Conceptual Framework



Source: Researcher's idea (2023).

This research study titled “How Personal Financial Planning and Financial Literacy improves Personal Savings in PNG” seeks to minimise this gap by educating people on how to go and access bank services and also by influencing people that is important to be financially prepared as well as improve the financial literacy levels of the people in turn, it might help to steer the economy into the right direction.

5.0 Methodology

5.1 Approach

The current research study has both qualitative and quantitative research. This type of research in particular enables the researcher to gather in-depth insights and knowledge on topics that are not well understood.

5.2 Research design

With the current research study, a case study approach was applied, carried out to collect required data from a predefined group of respondents to gain information and insights into various topics of interest, particularly on the people in Papua New Guinea to find out whether there is a savings culture amongst the people.

5.3 Population

The population that this research study is targeting is the student population of the PNG University of Technology. The research would contain all the students who study at the PNG University of Technology at the time of data collection. It's around 3500 students from undergraduate and postgraduate departments. This research is drawing data from this group of people to gain an insight into whether university students in Papua New Guinea have a savings culture.

5.4 Sample size

The sample size or the number of participants for the research study is 100. Random sampling method applied. The number of participants is according to the number of students who is willing and will have the time to respond to the questionnaires and surveys that will be given to them to answer.

5.5 Data collection

Throughout this research, in particular, it is best to collect primary data or information that is accurate, useful, authentic, and specific by nature. Primary data is collected because of its reliability as it is collected directly from the source.

5.5.1 Questionnaire

A research questionnaire is typically a mix of close-ended questions and open-ended questions. Therefore, with this research study, it was suitable to collect data through questionnaires where primary data can be collected from the respondents.

5.6 Data analysis

This study’s essential component is descriptive since it is mainly concerned with youngster’s financial planning and financial knowledge assessment, so observing and clarifying the existing phenomena. The survey study is one in which a bunch of individuals or things is examined by collecting and analyzing information from as it were several individuals or items considered to be representative of the complete gather. In other words, as it were a portion of the populace is studied, discoveries from this are anticipated to be generalized to the complete population (Nworgu, 1991).

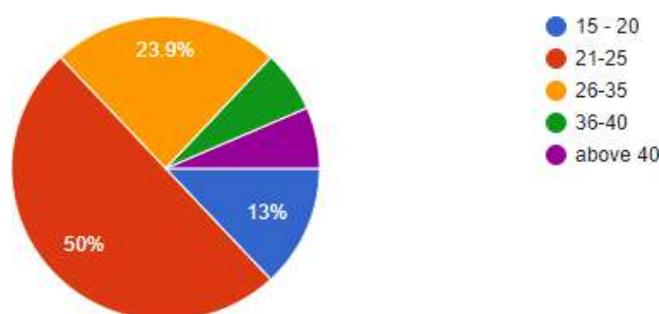
6.0 Demographic Data

This particular section, it will discuss the general characteristic of the respondents who completed filling out the questionnaires. Thereby, presented below are the five basic characteristics of the respondents including age, education level, employment status, income level, and marital status.

6.1 Age of respondents

From the data and information collected from the respondents, it was discovered that 25 (50%) of the respondents were between the age range of 21-25 years old, and a total of 11 (23.9%) of the respondents were between the age range of 26-35 years old however, 6 (13%) of the respondents were between the age range of 15 – 20 years old, 3 (6.5%) of the respondents were 36-40 years old similarly, 3 (6.5%) of the respondents were above 40 years old.

Figure 2: Respondents’ Age



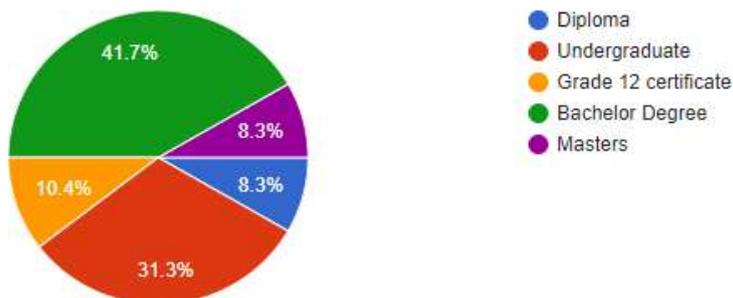
Source: Field Research (2022)

6.2 Education level of respondents

Displayed in this section will be the education level of the respondents. This was done to assess the level of understanding of each respondent, and whether they understood the importance of financial literacy and financial planning. A total of 20 (41.7%) of the

respondents have attained a Bachelor’s Degree, 15 (31.3%) of the respondents are Undergraduate students, and 5 (10.4%) of the respondents only have their Grade 12 Certificates however, Diploma 4(8.3%) of the respondents have it and the same goes for the respondents who have a Masters.

Figure 3: Respondents’ Education Level

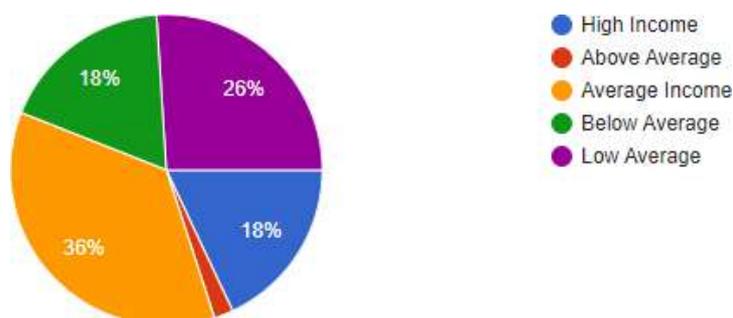


Source: Field Research (2022)

6.2.1 Economic status of respondents

During the collection of data, it was discovered that a total of 18 (36%) of the respondents have an Average Income while 13 (26%) of the respondents have a Low Average income but a total of 9 (18%) of the respondents have a Below Average income, as well as 9 (18%) of the respondents, also have a High Average income. However, only 1 (2%) respondent implied that he/she is an Above Average income earner.

Figure 4: Respondents Economic Status

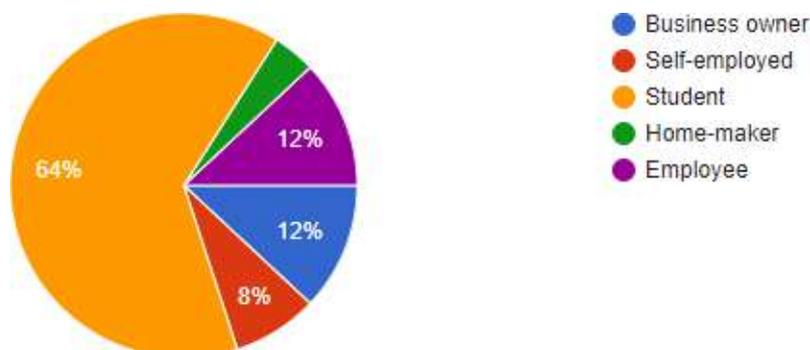


Source: Field Research

6.2.2 Employment status of the respondents

This question was designed to identify whether the respondents are employed and where they are earning some form of income. And as per the research, it was revealed that 32 (64%) of the respondents are students in University in particular, 6 (12%) are employees of business organizations, as well as 6 (12%), are business owners, 4 (8%) are self-employed and 2 (4%) are Home-makers.

Figure 5: Respondents' Employment Status

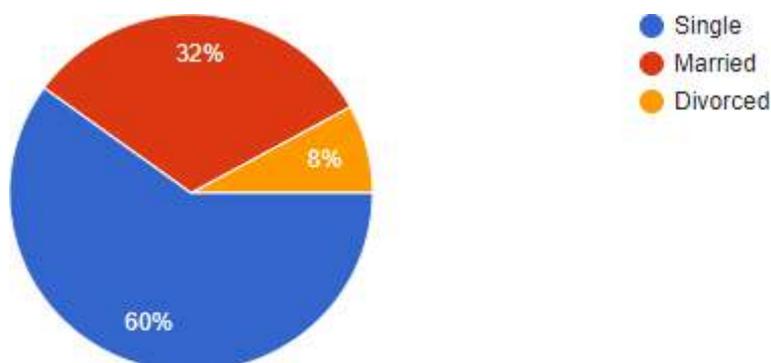


Source: Field Research (2022)

6.2.3 Martial status of respondents

This question in particular was formed to find out whether the respondents have dependents or not. Thereby, a total of 30 (60%) of the respondents are single, 16 (32%) of the respondents are married and 4 (8%) of the respondents are Divorced.

Figure 6: Respondents' Martial Status



Source: Field Research (2022)

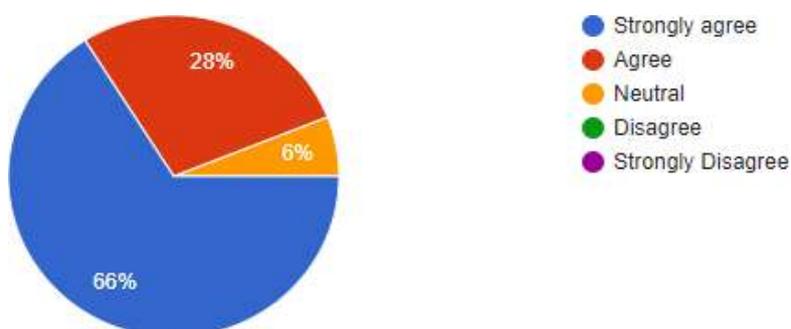
6.3 Increase or improve the financial literacy levels of individuals

This research objective is to purposely find out whether the improvement of the financial literacy level of individuals will improve their savings. As a researcher, we want to find out whether financial literacy training programs are effective and helpful to individuals that want to create a savings culture for themselves. Through this objective, we hope to establish the importance of financial literacy training programs so that the government can see that it is important to teach every individual the basic of personal finance and that such programs are needed.

6.4 Identifying whether attending financial literacy training improves the financial literacy levels of individuals

The results show that 33 (66%) of the respondents “strongly agree” that financial literacy training improves the financial literacy levels of individuals, also 14 (28%) of the respondents “agree” and 3 (6%) of the respondents are “neutral” as they are unsure whether financial literacy training will help people to save and spend money efficiently.

Figure 7: Importance of Financial Literacy Training

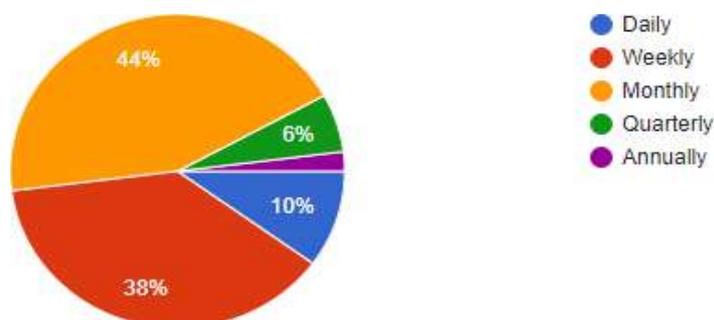


Source: Field research (2022)

6.4.1 How often do respondents create budgets

As per the research, it was discovered that 22 (44%) of the respondents create a “monthly” budget, 19 (38%) of the respondents create a “weekly” budget, and 5 (10%) of the respondents create a “daily” budget for the money they earn however, 3 (6%) of the respondents create a budget “quarterly” and only 1 (2%) of the respondent creates an “annual” budget for the year.

Figure 8: Respondents’ Budget Creation



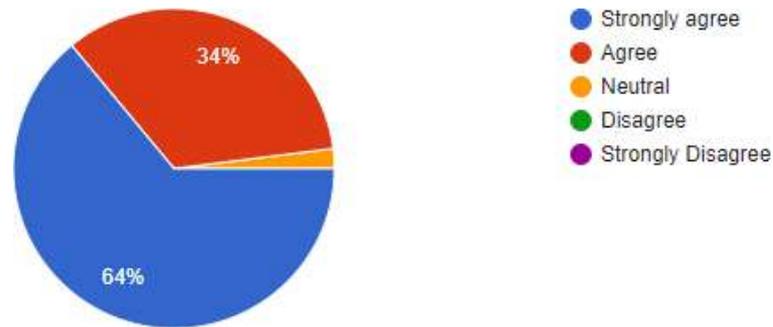
Source: Field Research (2022)

6.4.2 Financial literacy should be taught in high school as a subject

This particular question poses the following results, a total of 32 (64%) of the

respondents “strongly agree” that financial literacy should be a subject taught in schools however, 17 (34%) of the respondents “agree” and only 1 respondent is “neutral”.

Figure 9: Respondents’ Response to Financial Literacy Taught in Schools as a Subject

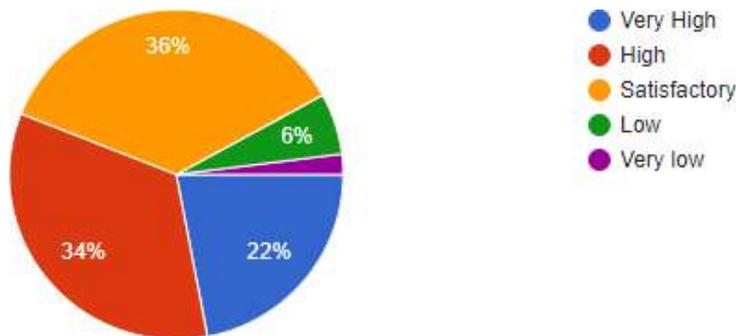


Source: Field Research (2022)

6.4.3 Respondents’ financial literacy levels

During the research when collecting data on this particular question, it was revealed that 18 (36%) of the total respondents have “satisfactory” financial literacy levels, 17 (34%) of the total respondents have “high” financial literacy levels, 11 (22%) of the respondents have “very high” financial literacy level, 3 (6%) of the respondents have a “low” financial literacy level and lastly, only 1 respondent has a “very low” financial literacy level.

Figure 10: Respondents’ Financial Literacy Levels



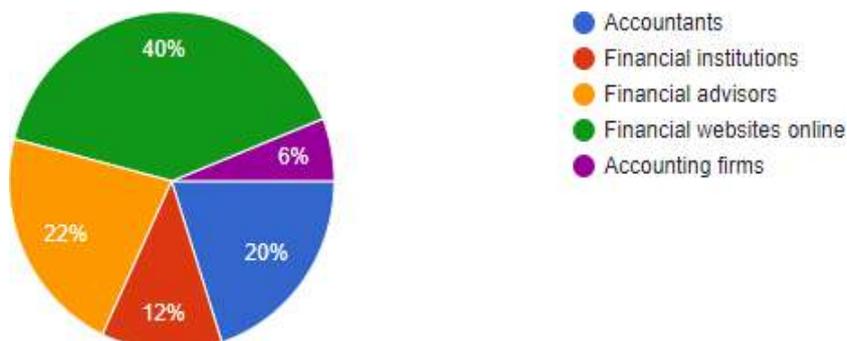
Source: Field Research (2022)

6.4.4 Where the respondents seek financial advice to make important financial decisions

This question, in particular, was designed to find out where individuals seek financial advice or information when making financial decisions and as per the research it was revealed that 20 (40%) of the respondents seek financial advice from “financial websites online”, 11 (22%) of the respondents seek information from “financial advisors”, 10 (20%) of the total

respondents seek financial information from “accountants”, 6 (12%) of the respondents get their information form “financial institutions” and only 3 (6%) of the respondents seek financial information from “accounting firms”.

Figure 11: Respondents’ Responses Where They Seek Financial Advice

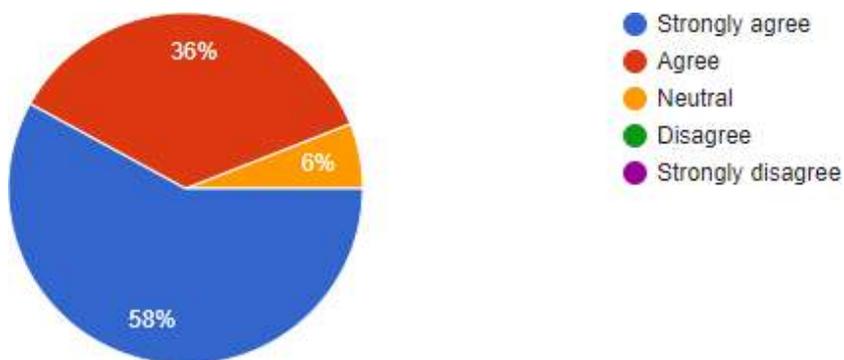


Source: Field Research (2022)

6.4.5 Financial Literacy training is an effective to gain basic financial knowledge

The results revealed, 29 (58%) of the total respondents “strongly agree” that financial literacy training is effective to learn finance, 18 (36%) of the respondents basically “agree” and 3 (6%) respondents are “neutral” they are unsure.

Figure 12: Respondents’ Response to Financial Literacy Training Effectiveness to Learn Finance

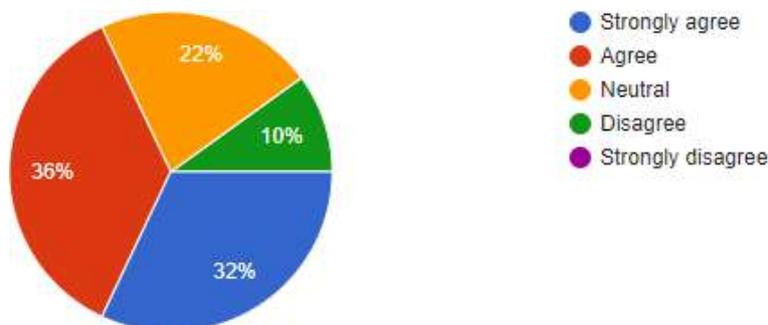


Source: Field Research (2022)

6.4.6 Responses to financial literacy training empowering women

The results discovered that 18 (36%) of the total respondents “agree” that financial literacy training can empower women, 16 (32%) of the respondents “strongly agree” with financial literacy empowering women, 11 (22%) of the respondents are “neutral” and 5 (10%) disagree that financial literacy training can empower women.

Figure 13: Responses of Financial Literacy Training Empowering Women

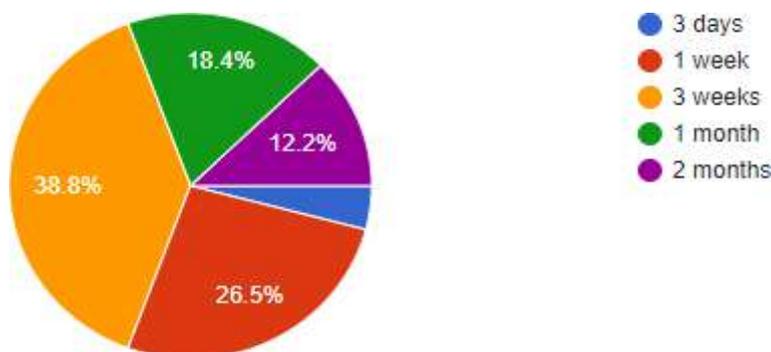


Source: Field Research (2022)

6.4.7 Respondents of how long financial literacy training should take

The results show that 19 (38.8%) of the respondents agree that the training program should take “3 weeks” as depicted by the color orange, 13 (26.5%) of the total respondents think that the training should only take “1 week” which is depicted by the color red, 9 (18.4%) of the respondents think that the financial literacy training should take “1 month”, 6 (12.2%) of the respondents think that the training program should take 2 months and 2 (4.1) of the respondents think that the training run for “3 days” shown in color blue.

Figure 14: Duration Time of Financial Literacy Training of Respondents

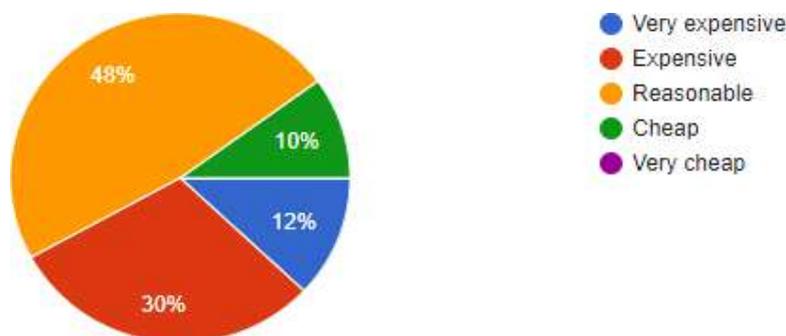


Source: Field Research (2022)

6.4.8 Respondents on the cost of the financial literacy training

The results shown on the pie chart show that 24 (48%) of the respondents agree that the cost of financial literacy training is “reasonable” which is displayed in the color orange, 15 (30%) of the respondents think that the training is “expensive” as depicted by the color red, 6 (12%) of the total respondents agree that it is “very expensive” shown in the color blue and 5 (10%) of the respondents think that the training is “cheap” which is displayed in the color green.

Figure 15: Responses to the Cost of Financial Literacy Training



Source: Field Research (2022)

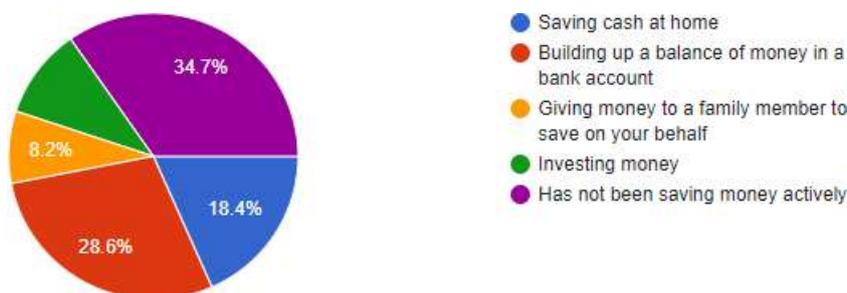
6.4.9 Respondents of do you know what a savings culture is

The results show that 28 (56%) of the total respondents replied “yes” they know what is a savings culture, 13 (26%) of the respondents replied ‘maybe’, 7 (14%) of the respondents are “not sure” what is a savings culture and 2 (4%) of the respondents replied “no” meaning they have no idea at all what a savings culture is.

6.4.10 In the past 12 months, have you been saving money in any of the following ways?

The results display the following results, 9 (18.4%) of the respondents are “saving cash at home”, 14(28.6%) of the respondents replied that they are “building up a balance of money in a bank account, 4 (8.2%) of the respondents replied that “give money to a family member to save on their behalf, 5 (10.2%) of the respondents “invest money” and a total of 17 (34.7%) respondents have not been saving money actively.

Figure 16: Responses of Individuals Saving Money in the Past 12 Months



Source: Field data (2022).

6.5 Respondents of losing their main source of income, how long they could continue to cover living expenses without borrowing?

From the research the results show that 13 (26.5%) of the respondents could cover

than living for less than a week, 20 (40.8%) of the respondents can cover their living expenses for more than a week but not one month, 12 (24.5%) of the respondents however, can cover living expenses for 1 month but not 3 months, 3 (6.1%) of the respondents can cover costs for almost 2 months but not 6 months and only 1 respondent can cover their living expenses for more than 6 months.

7.0 Findings

Firstly, the research has gathered sufficient information and data from the respondents and it was discovered that many individuals in Papua New Guinea lack basic financial knowledge, their financial literacy levels are quite low or below average as well as many people in Papua New Guinea do not have the attitude or the desire to save. In terms of increasing or improving the financial literacy levels of individuals which is one of the research objectives it was discovered that the majority of the respondents believe that financial literacy training it could help improve the literacy levels of individuals, majority of the respondents think that creating a budget every month is helpful to allocate and spend money accordingly. 64% of the total respondents strongly agree that financial literacy should be taught in school as a subject because they believe that when you teach people at a younger age to spend, save and invest money wisely and efficiently it helps them to be financially stable in the future when they are earning their income. Financial websites online have become the common place where individuals seek financial advice or information to make better- informed decisions furthermore, almost 58% of the total respondents strongly agree that financial literacy training are an effective way to help people gain basic financial knowledge and understanding.

8.0 Conclusion

The research findings revealed that many individuals in Papua New Guinea are not aware of the importance of saving money as well as they do not know how to save. The reality is that many Papua New Guineans have the habit of borrowing money and getting loans either from banks or from loan sharks, this trend is evident today and has worsened because PNG's economy has declined and also inflation has worsened over time as well. In addition, the living standards are very high and slowly the income and wages earned are not sufficient to cater to such standards.

Financial literacy training is important and should be taken seriously to help people gain basic financial knowledge so that they can make better and more informed decisions. Research shows that Financial literacy training programs have helped people and communities to develop a savings culture, this practice or method teaches people the fundamentals of saving money. Many individuals are influenced to save money to feel financially stable, to achieve personal financial goals, for retirement, or for unexpected

expenses that might occur. However, many individuals and families are living on borrowed money where 80% of their income is going back to repay loans, this lifestyle is becoming a common trend in Papua New Guinea which as a result is affecting the overall ability to save money in bank accounts where it could grow over time and be used for other expenses or costs that are regarded as essential to survive in hard circumstances.

The habit of saving money should be taught at a young age so that it becomes a part of them as they grow up into adults where they are allowed to earn their income. So the researchers found that financial literacy should be taught in high schools as a subject to ensure that young people are taught the basics of saving money in bank accounts and be aware that saving money fortnightly should be a habit to follow. Spending money is very easy and is not something that needs to teach on the other hand, saving money is a difficult task as people are tempted to spend. And as per the research, many of the respondents are not able to cover their living expenses for more than one month after losing their main source of income. This just goes to show that people do not know how to manage and plan out their money wisely and effectively.

On the contrary, there is a growing need for financial education and proper financial planning which could be used to manage money wisely and effectively. Different forms of financial education should be implemented to educate people about personal finance which includes investment, savings, credit, financial planning, insurance, and many more. The research found that the increase in financial literacy training is vital to encourage people to save money and bring about awareness in communities informing them that saving money is helpful because savings can be used to pay for school fees, hospital bills, or food and water. Nowadays everything requires money, money is considered to be powerful when one has been abundantly blessed with money, this person is considered to be superior, money brings about a change in people's lives, it allows them to afford things that they desire, it allows them to feel financially stable and helps people not to worry about living expenses. Savings is crucial in this day and age, at least everyone must have a savings account where they can save money.

9.0 Recommendations

With this research, it is recommended that there is more provision of financial literacy training to empower individuals to make smart financial decisions. The provision of more provision of financial literacy training provides the knowledge and skills individuals need to manage money effectively such as budgeting, saving borrowing, and investing. Thereby, with these skills and knowledge at hand, individuals are equipped to reach their financial goals and achieve financial stability.

The main objective of financial literacy is to help develop a stronger understanding of basic financial concepts in that way people can handle their money better. Financial literacy is a good avenue to learn the basics of personal finance as it gives an insight into why, how, what, when, and where to save, invest and spend money.

Financial literacy training provides the financial education that everyone needs, the training brings about the experiences and lessons that have been learned by qualified individuals and institutions. The training hopes to encourage and implement different strategies that could be used to educate people about personal finance, money management, financial stability, proper financial plans, and many other methods that could be practiced by people to guide and help them save and invest money effectively and wisely.

Participants who join financial literacy training discuss the lessons, experiences, and knowledge learned that they have gained from this training so that they could use it in real-life situations. The training provides the participants with the relevant tools and frameworks that could best be applied in their financial aspect of life, the training helps individuals to learn about the current practices of financial education and be equipped with the tools and strategies as well as methods that is best suitable for your financial goals. Furthermore, the financial literacy training also provides groups and individual self-learning activities and assignments that are best suitable for people and each session will be a 1 hour 30 minutes session that could be delivered in person or through online platforms.

9.1 Financial literacy should be taught in high schools as a subject

The research recommends that financial literacy should be taught in schools as a subject in Papua New Guinea because it is very helpful that financial literacy is being taught at a young age to develop basic financial skills that could be useful. Financial literacy classes hope to provide the basics of money management such as budgeting, saving, debt, investing spending, and many more. Additionally, these skills and knowledge provide the foundation for young people and students especially to build strong and effective money habits early on which could avoid many of the mistakes that lead to lifelong money and financial struggles and hardships.

Therefore, this research strongly recommends that “The Five Foundations” may be implemented in high schools as part of the financial literacy course. The five foundations are a simple plan designed to help students confidently handle their finances that is implemented in many schools around the world as well. The first foundation is to encourage students to set aside money for emergencies. Financial emergencies could put students into debt if they do not have any money set aside and big problems can become minor issues when there is an emergency fund in place.

The second foundation is Get out and stay out of debt which implies that debt is a huge financial burden that many people struggle with and so financial literacy programs teach its students the different ways debt traps them and shows them how to break free from them.

The third foundation and fourth foundation is to pay cash for a car and college, it's better to pay cash because it is easier to budget and stick to it. When individuals pay with cash in a way they have budgeted for the purchase and it is easier to track exactly how one is spending the money. It also helps to keep track of how much cash is going out against how much or what is coming in on a weekly or monthly basis.

The fifth foundation is to build wealth and give. People who live a debt-free life and are financially disciplined about saving and investing money can live and give like no one else. Time and patience are all that is needed to be financially stable where money is no longer a worry and stress, you can now enjoy the money and spend time thinking of ways to give to others who are struggling. So when a person is financially literate, they make smart decisions with their money and most importantly build good habit's that can trickle down to their families and communities and probably the nation as a whole. This trend hopes to change the toxic money culture and create a more financially stable environment for everyone.

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From Crisis to Opportunity: The Future of Business in the Wake of Current Events

Nadiya Zafar*

ABSTRACT

Recently, over the decade so many things are changing and happening all over the globe. It seems like a new era of world started from 2020. Constantly, the planet is going through changes, whether it would be a political change, social, economic/financial, or emotional/empathically. This world and its habitants learned so many things from the ongoing recent event. Despite of several differences some incidents make the world to stand together, some incidents totally separated and devastated the certain community and make them to stand apart. Through this paper author is putting a light over the impact of these changes in the world of business. In this paper we are going to discuss impact of these events, on the business trends and future of business. A survey is conducted among students related to correlate these two. This paper discusses whether the businesses got an opportunity to flourish or suffered in the view of current scenarios.

Keywords: *Climate change; Current events; Future of business; Pandemic; Recession; Wars.*

1.0 Introduction

Recently, business world facing the two sides of coin parallelly. Due, to pandemic and climate changes many countries face a huge loss and capital crisis on the other hand some country turns this pandemic into opportunity their innovative ideas. This corona breakdown created a threat for life as well as livelihood. After the worldwide lockdown many industries faces the huge losses but on the other hand some industries got a huge hike in their market value. For example, travelling business drastically dropdown after covid breakdown and so many airlines companies suffered a huge loss (Fontanet-Pérez, Vázquez, and Carou 2022). But on the other side, the entertainment industry, and the online educational platform got enormous hike in their market value. For example, Physics Wallah, Netflix etc. Almost all the organizations are going through the constant transformation. Traditional way of business marketing is no more in trend now (Knight et al. 2022). Over the top of all the constant power shift, socio-economic condition, climate change is happening and these organizations must contend the need of all these changes.

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As a result of the war in Ukraine, the era of not scrutinizing supply chains, trusting suppliers, and optimizing for cost is likely to come to an end (Anon 2020a). In addition to global uncertainties, enterprises may face threats and risks as a result of domestic government policy (Elnaggar and Elsayed 2023). All the organizations must have to learn to fit themselves into these transformations taking place over the global village. While executives intend to broaden almost all tech competencies as part of their future digital transformations, the key to success is human resources (IBM Institute for Business Value 2020). Among all these topsy turvy changes small business are suffering the most (Helgeson et al. 2022). They did mass layoffs, faced risk of closure and financial fragility (Bartik et al. 2020). But as we say, every coin has two faces. These events also affecting business in the two ways. On one hand many businesses are facing crisis, meanwhile on the other hand some businesses are turning these into opportunities through their innovative ideas. To measure the effect of current event on the future of business in this paper the author has chosen four major scales: pandemic, wars, recession, and climate change. Although we have discussed some other scenarios also like AI taking place of human resources, idea of those business will grow in future which are environment friendly etc.

1.1 Objectives of the study

- The study aims to explore the affects of currents on the future of business through relating the impact of ongoing events on business these days. For this process, four major ongoing incidents are chosen to conduct the research.
- Pandemic (in the wake of covid-19)
- Wars (in the wake of Russia-Ukraine war)
- Climate change (in the wake of natural calamities taking place all over the globe like flood in Pakistan, earthquake in Türkiye)
- Recession (inflation all over the globe like Sri Lanka)
- A survey is conducted among students to establish the relation between these events and business.
- Based on the responses received analysis is done about the future of business.

2.0 Review of Literature

While discussing about the future era business we have to keep some key attributes in mind like what will be the strategy, who will be the consumer in future behavior, how supply chains will be implemented, which business models will be followed, and how emerging technologies will be utilized (Ahmad et al. 2023). In future decision making system with the help of big data analytics is going to play a vital role in making decision about the business, for predicting customers demand, market trend etc. (Chen et al. 2022). After digitalization, time and space is no more hurdle in expanding any business and digital presence is possible at anywhere (MCGINNIS 2019).

According to the report of Forbes the popular Business trends in 2022 were:

Trend 1: Sustainable, Resilient Operations.

- As the sustainability is associated with resilience and hence resilient means underdog (promising and able to be beneficial for long term).
- Those businesses who ignore sustainability fail to stay for long in this competitive and conscious era.

Trend 2: The balance between human workers and intelligent robots.

- After the emergence of AI, unskilled humans are replaced by the intelligent and smart machines gradually.
- So, it is the prime duty of any organization to establish a strong balance between humans and machines.

Trend 3: The shifting talent pool and changing employee experience.

- Most of the industries now prefer to hire smart workers rather than hard workers. They are hiring one highly skilled employee for two or three days in a week rather than hiring 10 employees for the whole week.
- One more trend is going on in the IT industry is that non-IT people are switching towards the IT industry because of its lucrative incentives.

Literature study over the ongoing events in the world, concludes that, these industries will for sure go on to grow enormously in the future:

- Warfare industry: Due to political differences countries are just behind each other to gain power. For this they are spending a lot of money on weapons, manpower training and nuclear power etc.
- Cyber Security industry: In correlation with the warfare industry the cyber security industry is also growing parallelly. Most of the organizations/state are spending a lot of capital over the cyber security industry.
- Entertainment industry: With the emergence of the digital era people become cozier. When the entertainment is available on a single click, they do not want to spend much more on other recreational activities. This generation is somehow addicted with Netflix, online gaming etc.
- E-commerce industry: A large section of the population now, prefer to do shopping online. This is saving their time and travelling expenses.
- Health-care industry: This industry will remain growing and growing in the future also.

Categorizing the industrial area and effect of ongoing events on their economy. Four major events chosen are Pandemic, Recession, Climate Change and Wars.

- Pandemic: In the recent pandemic the tourism and transportation industry suffered the most. The economy of many powerful countries suffered and their GDP dropped down. Now, the post effect of the pandemic is that so many countries are facing inflation. Europe emerged as the most suffered continent over the globe from this pandemic (Anon 2020b). Spain becomes the one of the European countries with the largest drop in Gross Domestic Product (Pinilla et al. 2021). The stock market undergoes through a lot of fluctuations after the

lockdown was announced globally (Xie and Zhou 2022). Shipping trade; importing and exporting the goods, almost got banned all over the globe (Verschuur, Koks, and Hall 2021). Most of time when economic is draining people want to spend over the basic needs only. So, the industry who are meant for the elite class hobbyist or their passions suffered a lot. Horse market is among one of those industry. Horse-owners were at the verge of starving as nobody was willing to spend over the horse industry (Huseman et al. 2021). During evacuating their citizen from any country, it was mandatory to do their full medical checkup. This boosted the country medical economy as well overburdened them with extra workload (Şencan and Kuzı 2020). The industry who got boost in its economy during this pandemic is pharmaceutical industry. People in fear just taking a lot of medicines to keep themselves covid free. Even powerful country like USA with good economy depends upon the country India for the pharmaceutical needs. India is not fulfilling the pharmaceutical needs of its 1.3 billion population but also aiding the 40% of USA pharmaceutical needs. They exported medicine hydroxychloroquine to these countries (Guerin, Singh-Phulgenda, and Strub-Wourgaft 2020). Due, to the manufacture place of hydroxychloroquine India got a worldwide appreciation. Creating a vaccine for this novel disease is a challenge itself. It became a headache for healthcare industry. Tackling this situation is really an exhausting process but healthcare industry is the one who benefited a lot from this pandemic (Koch, Fathi, and Addo 2021). On the ground so many cases of black market of Oxygen cylinder and covid aids happens. On the other hand there are some countries whose economy neither boosted nor much affected like Turkey (Açikgöz and Günay 2020). So, in overall we can say that from this pandemic small businesses and side hustles suffered the most and healthcare industry suffered the less.

- **Climate Change:** Rapid climate change also affected the business and economy all over the globe. Due to global warming and high pollution rate now sustainable development in demand and in future also so companies would likely to spend over the technology for sustainable development. Because, climate change is doing constant damage to economy of some country. Recently, Turkey suffered a lot and from earthquake and economy of Pakistan is drastically dropped down due to horrible flood. Climate change is creating risk for business world through dropping down economy but also giving opportunity for the innovative ideas which will leads to less emission of CO₂, preservation of natural resources and afforestation. Recycling industry becomes the most benefited industry from climate change. It is the moral responsibility of any corporate that when they think of any idea they have to come up with such a model that will be environment friendly (Hormio 2017). There is a bright future for environment friendly innovative ideas.
- **Recession:** None of industry remains untouched from the effect of recession. Bank loan rate becomes high, some banks even stopped issuing loans. Tech industry is one of the most suffered industries from recession. Tech business faces certain layoff, huge loss, low growth rate and what not. Impact of recession is much more visual in Higher Education. So many seats of admissions remain unfilled due to lack of admission. As if now people

are more interested in making money at early age rather than seeking Higher Education (Anon n.d.).

- Wars: From wars always wars and weapon industry got a lot of benefit. Whether manufacture of guns and other arms or taxation on these arms. These are the major industry which got boosted during war time (Lakomaa 2017). As the time changes method of wars also changes now cyber security becomes the much-concerned industry during wars. So, a new kind of business cyber security services are growing green whether it is a case of Russia-Ukraine war or China-USA war. In some war-torn area the life and livelihood are itself become a risk but on the other side some are enjoying from this war, benefiting tax impositions, and exploiting their resources. So, wars always say a two-side story in all aspects. Whether it is of business growth or fall. Due to continuous war migration was also taking place so in a way travel industry got benefit from it.

Below is the concluded result depicted through Table 1 for some major industries which suffered, less suffered, or not suffered at all from these above discussed factors.

Table 1: Affected and not Affected Businesses from Ongoing Current Events

Industrial area/ Businesses	Pandemic	Climate Change	Recession	Wars
Food Industry	LA	LA	MA	LA
Clothing Industry	LA	LA	MA	LA
Education	MA	LA	MA	MA
Health care industry	NA	NA	MA	MA
Luxury/passion	MA	LA	MA	MA
Tourism industry	MA	LA	MA	LA
Travelling industry	MA	LA	MA	LA
Warfare industry	MA	MA	MA	NA
Cottage industry	MA	NA	MA	LA

Here LA= Less affected, MA= More affected, and NA = Not affected.

Source: <https://www.bbc.com/storyworks/capital/planning-your-next-business-event-in-japan/the-future-of-business-events>

3.0 Research Methodology

3.1 Research design

This research is conducted in the below mentioned flow:

- Gathering of Information: Information about Business trends and recent events are gathered from authentic resources like Forbes trend, research papers are collected from reputable journals and publication.
- Literature Survey: A literature survey is conducted over these four major aspects chosen in the paper: pandemic, wars, climate change, and recession through the lens of their impact on the future of business and identifying their impact.

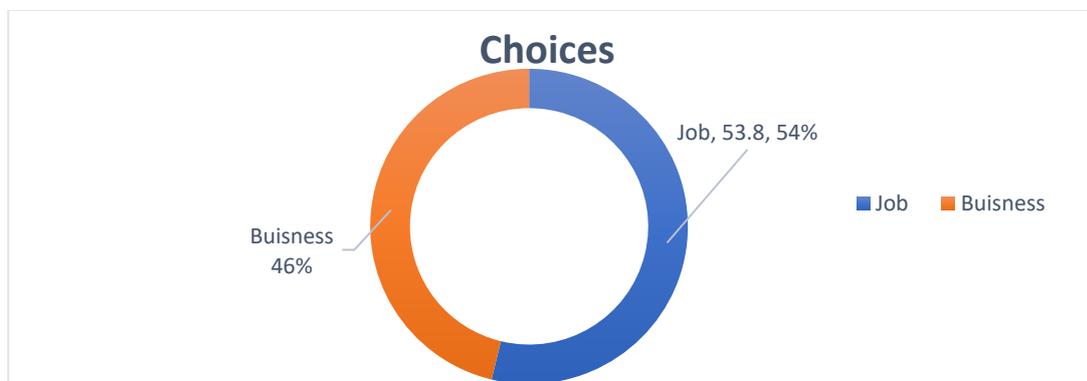
- **Objective and Hypothesis:** The main objective of this paper is to research over the future of business which will get affected through the ongoing incidents. In this paper the formulated hypothesis is these major ongoing events is going to affect the future of business by hook or crook.
- **Survey:** A survey is conducted comprising of these questions: a) Which one you want to choose in your future? b) Which one you feel as a better option? c) Do you have any plan for start-up in future? d) Which recent affected the business most? e) Do you agree that recent events are going to affect the business in future? and f) Suggest a business idea which will remain trend in future?
- **Discussion and Conclusion:** Analysis of responses against this survey conducted is carried out in this part and impact of the four major scales chosen above are discussed in this part.
- **Tables:** Table 1 depicts the effects over industries in future due to those chosen scale in the paper. Three parameters are chosen in this table to show the impact on the industry. MA= More affected, NA=Not affected, LA=Less affected.
- **Graphs:** Graphs depicts the analysis result of survey conducted. Graph 1 depicts the choice ratio between job and business in future. Graph 2 depicts students' choices for their future. Graph 3 depicts students interested in start-ups. Graph 4 depicts the opinion whether they agree or not that ongoing events will affect the business in future. Graph 5 depicts the impact ratio of ongoing events on the future of business. Graph 6 depicts the visual representation for any one suggestion for business that will grow in future.

3.2 Source of data

The data are collected as a response of survey conducted among the students mainly from Undergraduate students.

4.0 Analysis and Discussion

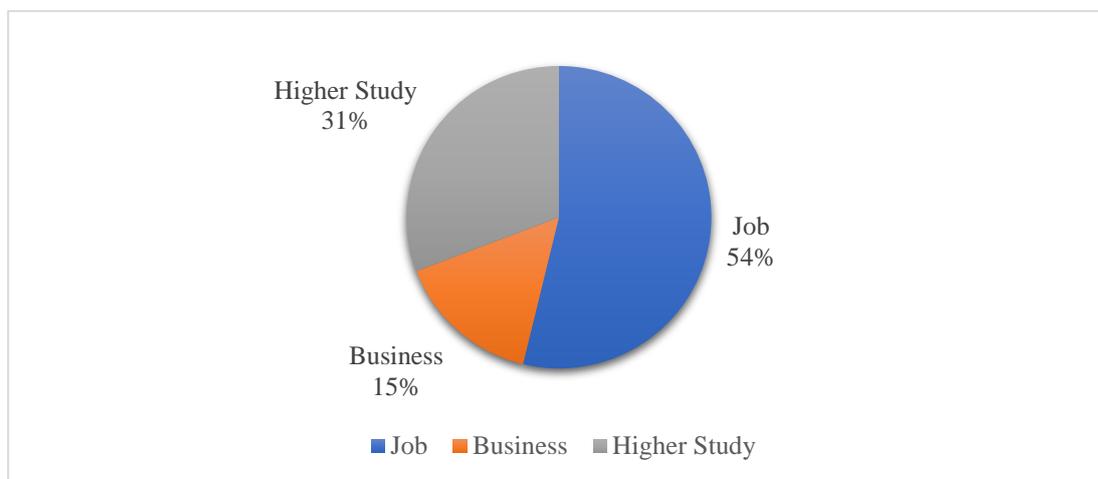
Figure 1: Future is Job or Business



Source: <https://docs.google.com/forms/d/1W6ujRI4LTQHSkliNLpubXq89oH-eRcDP9m6A7NgB1lo/edit#responses>

Through conducting a questionnaire response among student related to the impact of current event on the future of business, these are the results: First, the response against the question “which will be a better option job or business” is as depicted through Figure 1. When there is question what they will choose for their future, the response received as follows: 53.8% opted for the job, 30.8% opted for the higher study and only 15.4% opted for the business presented through Figure 2.

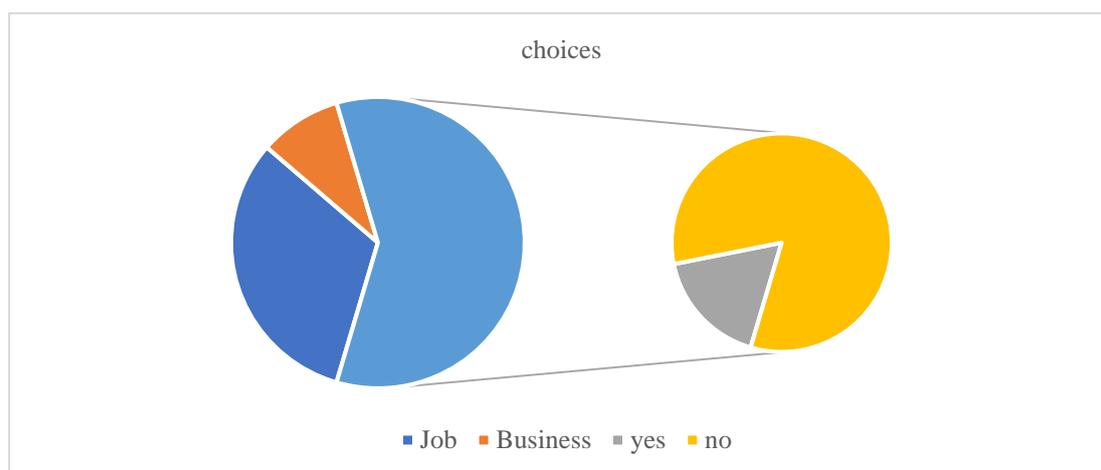
Figure 2: Students’ Choices for Future



Source: <https://docs.google.com/forms/d/1W6ujRI4LTQHskLiNLpubXq89oH-eRcDP9m6A7NgBilo/edit#responses>

Figure 3 depicts the ratio of choice for startup in business which is only 17.3%.

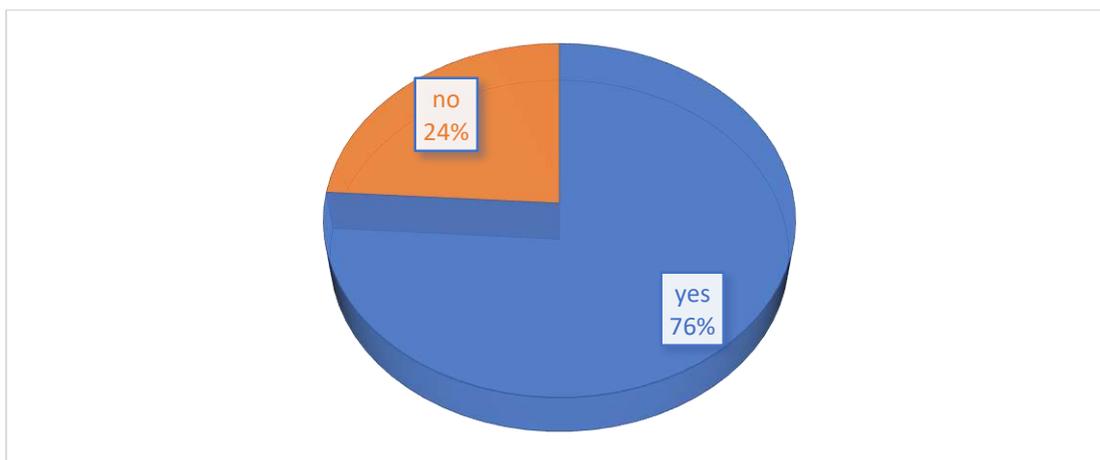
Figure 3: Interested in Start-ups



Source: <https://docs.google.com/forms/d/1W6ujRI4LTQHskLiNLpubXq89oH-eRcDP9m6A7NgBilo/edit#responses>

When the question was that if they think, current scenarios are going to affect future of business then seventy-six percent strongly agree that these events will affect the business while the twenty-four percent disagree and this result is depicted through Figure 4.

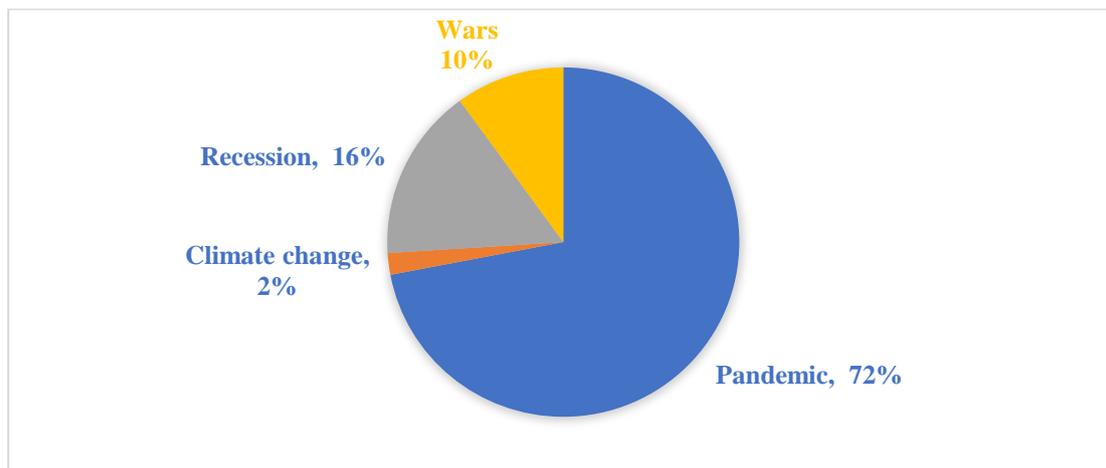
Figure 4: Do You Agree that Recent Events are Going to Affect the Business in Future?



Source: <https://docs.google.com/forms/d/1W6ujRI4LTQHskLiNLpubXq89oH-eRcDP9m6A7NgB1lo/edit#responses>

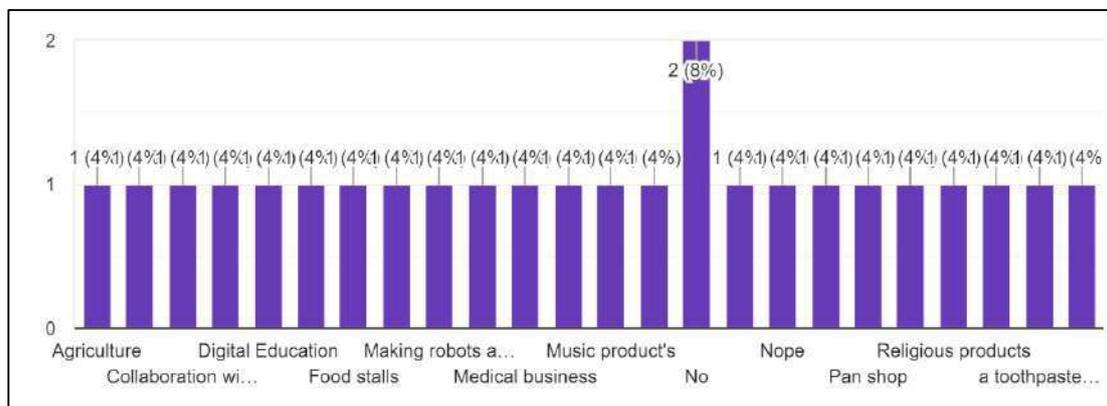
The result for choices shown through Figure 5 against the question, “which ongoing event affected the business most?” the result is as follows:

Figure 5: Impact of Ongoing Events on the Future of Business



Source: <https://docs.google.com/forms/d/1W6ujRI4LTQHskLiNLpubXq89oH-eRcDP9m6A7NgB1lo/edit#responses>

Figure 6 depicts the response for which business will grow up in the future, surprisingly received almost all different-different responses. Some of them are agriculture, music, digital education etc.

Figure 6: Suggestion for Business that will Grow in Future

Source: <https://docs.google.com/forms/d/1W6ujRI4LTQHSkLiNLpubXq89oH-eRcDP9m6A7NgB1lo/edit#responses>

5.0 Conclusion and Implications

If we only look at businesses that were still open, we can see that the total number of full-time employees had decreased by 17.3 percent. The proportion of part-time workers has decreased by 34% (Chen et al. 2022). For constant economic growth in future the advancement in renewable energy industry is much needed. As well as the availability of financial resources also required (Mukhtarov, Yüksel, and Dinçer 2022). But on the other hand, there are some industries which are never going to fed in the future. Like the food and clothing industry; if the human will remain on this planet these two industries will remain. From beginning to up till now these two industries are flourishing and prospering only. So, through response collected, this paper concluded that the current scenarios are for sure going to affect the business in future among which pandemic is affecting widely and immediately while wars and climate change leaves an impact for long and affect the businesses and livelihood gradually. While some business will remain least affected also like food and clothing industry. Our result collected also shows that due to continuous risk and economic fragility less students are interested to opt business.

6.0 Limitation

The survey is conducted among the students only. Hence, it is solely based on the mindset of academic or educated people. Result may be different if it will be carried out among different groups of society or working classes.

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How Economic Sustainability is Vital for Environment, Society and People while Reducing Poverty – A Case for India

*Sunil Kapadia**

ABSTRACT

The experimental discovery demonstrates that economic complexity, cross-border trade, and unlimited power utilisation all play a role in reducing environmental damage. In contrast, non-stop energy use and economic expansion are to blame for rising pollution levels. Balancing economic growth that benefits social and environmental issues while reducing poverty has long been one of the top concerns for most countries. However, healthy development that results in successful adaptation has not occurred uniformly throughout the cosmos. In India, many rural people face difficulties for having uneven or deficit development besides being exposed to variable climatic conditions and extreme surroundings that add to hardship. Many Indian cities are densely packed and prone to natural calamities like landslides, urban flooding, sea level rise, and heat waves with limited knowledge to mitigate. There are discussions on whether and how the development of science, technology, innovation, and modern times disruptions can offer a much-needed solution to deliver social good and improve livelihoods for the attainment of ecological-social sustainability for humans.

Keywords: *Economic growth; Environment; Climate; Sustainability; Renewable energy.*

1.0 Introduction

To address sustainability challenges United Nations in 2015 articulated 17 Sustainable Development Goals with a renewed global vision and stressed the importance for joint actions by several social performers. Throughout the decades bygone, sustainability discipline has drawn myriad analysts, proponents, philosophers, educators, and scholars from distinct establishments and subjects covering the globe. Managing the environmental and social aspects is referred to as economic sustainability for the long-term development of a nation and its people. The tricky and ever-changing world we live in the zestful, and sustainability presents a modern perspective to understanding one which explicitly acknowledges that there are various means of understanding the world and that development is quite an economic-political affair.

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Indian economy is growing and is seen as one of the large and fastest developing nations. And the country's dependence on imported fuel/crude oil is continuing unabated and is estimated to reach 6 million barrels per day by 2030 (Projected import – IEA 2007). Here Biofuel is regarded as one of the alternatives that can be manufactured domestically and can be switched for petrol and diesel to fulfill the transportation need will be a much-needed potential choice. Consequently, it calls for examining likely socio-economic and environmental ramifications of biofuel manufacturing plans, especially on net GHG advantages from water requirement, availability of land for food production, land redevelopment, and biodiversity. Over the past few years, Industry 4.0 and maintainability have become critical points of the universe. Discussions center on the connection between the environmental aspects of Industry 4.0 and maintainability. The new mechanics evolved to provide the corporate to advance innovation and entrepreneurship, recover and reuse material, lower energy waste, enhance the market share, etc.

A planet of 7.5 billion-plus and will rise close to 10 billion people by 2050, the hitherto economic theories cannot serve us well. A structured application accelerating conversion to a resource-efficient, Green Economy, low carbon is probably the desired route feasible if all stakeholders and surroundings are to prosper, let alone live all over the 21st century (Leach Melissa, 2010). The ecological economics, circularity and CE, and bio-based give 3 plans to superscribe community, surrounding goals, and economic and encourage various routes for maintainability revolutions.

1.1 Rationale of the paper

To examine corporate and financial environmental aspects leading to sustainability (ESG) while adhering to well accepted standard/benchmark in the Indian context. And how it can positively impact various stakeholders at different stages to improvise their overall performance in equal and fair manner.

1.2 The objective of the study

After having introduced the subject, the author has framed the following objectives.

- a) To study the broad environmental and sustainability-related aspects that include water waste, CO₂ emissions, reducing carbon footprints, NO₂ emission, waste reduction, and efforts by the administrators in India in balancing the ecological surroundings.
- b) To study a few of the development aspects of SDGs, their current status, and initiatives by the government and what is required needs to be explored and implemented for the country to transit itself to high-development nations while significantly improving rankings on various indicators.

2.0 Review of Literature

From the advocates of maintainable evolution, we study that maintainability could be successfully directed by establishments, governments, and individuals that usefully

consolidate financial, ecological, and social plans (WCED 1987). Although the noble purpose of economic equity and social equality, of course, requires to be encouraged, a more progressive reestablishment of possible preferences and a incrementally comprehensive honest apprehension for the surrounding may guide course of action further – Helen Kopnina (2016).

Climate change impacts India hitherto being experienced and affects individual lives and livelihoods of innumerable. Thousands of persons are dying and falling sick because of the exhaustive heat boomers during summers each year – Rohini, P., Rajeevan, M., & Srivastava, A. K. (2016). The inhabitants in Indian towns & metros are unprotected from floods that are damaging to the economy, people, and nourishment, and hundreds are left without shelter in the process losing their property, belongings, and assets Dulal, H.B. (2019)

Going down groundwater and dwindling landholding size are moving out relocation and deprivation (Venot et al., 2010; Zaveri et al., 2016; Gupta, 2016). Within this framework of uncertainty, extreme climatic conditions and change aggravate prevailing risks, particularly in subtropical desert which is marked by extraordinary water level paucity and area mortification. Atmospheric environment threats are connected with systemic unfairness such as old socioeconomic and ministerial disparage, extreme poverty, livelihood options, and social class, and sex identity hierarchies (Gaiha and Imai, 2004; Banerjee et al., 2013; Singh et al., 2016b) to figure domestic susceptibility.

Maintainability is perceived through several lenses. Two perspectives are John Elkington's multi-generational theory born of the Brundtland Report and triple-bottom-line—profits, people, planet—matching the need of current but not weakening the capability of coming/new generations to meet their needs – Sarkis, J. (2020). Maintainability has evolved over the years and delineates one of the important and also much talked about problems of the decade just gone by. In the beginning, maintainability was mentioned only to water waste, CO2 emissions, environmental features related to the reduction of carbon footprints, etc. However, maintainability has gained a new definition connected to the Triple Bottom Line Planet, People, and Profit – Cricelli, L., & Strazzullo, S. (2021).

Digitalization has the potential to provide for a more maintainable future and likewise is deliberated to affect social sustainability, ecological sustainability, and sustainability in general. Consequently, it will provide a beneficial effect on reducing CO2, climate change, and more sustainable energy and agriculture saving. Although ecological issues can be rectified by digitalization, it plays a more crucial role in economic maintainability since it evolves in economic maintainability through automation, connectivity, and proficiency, Brenner, B., & Hartl, B. (2021). SDGs helped as a powerful medium and hasten advancements on crucial universal alliances and agreements such as gender inequality, climate change, sustainable cities, social inclusion, and poverty reduction (Tollefson and Gilbert 2012; Winkler and Satterthwaite 2017).

It is evident from the numerous examples of 'wealthy' nations neglecting to pay attention even to the token needs of supervising the propylene discharge that impact atmosphere switch that financial prosperity does not spontaneously guide to options for

environment tender types of infinite power (e.g., The Economist 2015). Supply chains and maintainable operations are deep-rooted and well-known subjects in performance management teaching. Maintainable supply chain investigation centered on a triple bottom line when environment and economics play roles (Hallinger, 2020) and social issues receive growing recognition (Nath and Agrawal, 2020; Walker et al., 2014).

3.0 Research Methodology

The article is descriptive, and the author has used secondary data from reliable sources – namely, a few authentic websites that include MoSPI, Government documents, domestic and international online publications, and various industry chambers, academic journals, business newspaper articles, among others.

3.1 Analysis

The nations that exhibit financial intricacy are those with fast-track monetary expansion and high electricity consumption. A unique country with the highest financial involution, India becomes the obvious choice for our case study. India is confronting environmental deterioration, deprivation, and inhabitants squeezed on one side, then again, from people from heightened movements because of financial development, switching consumption habits and styles. India is still grappling with achieving water, socio-cultural security, livelihood, and food for its populace, even after 75 years of independence.

Both neutral and formal analyses reveal lasting deprivation, social inequity, energy and water, joblessness and underemployment, food shortages, ecological footprint, and other issues that hamper the advancement of development. The identified six components of ecological footprint are forestland, fishing grounds, carbon footprint, crop-area, pasture-area, and roofed structure, and its shift through time. The task henceforth in making progress consistent with the environment is to re-establish the financial plan in a way that will not damage the environment since economic well-being is a must.

Countryside gives an ideal opportunity to conduct a study and background to survey the hardship of zonal dissimilarities in establishments (both informal and formal) that include values, culture, and belief systems and their impact on the bricolage pursuits. Bricolage is 'producing do by striving mingling of resources hitherto at hand to new issues and possibilities' (Baker & Nelson, 2005). Here, the reference drawn to a few articles has examined two Social Enterprises operating in various domains focusing on separate geographical localities.

Fast-track growth in industrialization has caused a sizeable thriving in fossil fuel consumption in India. The terrible impacts of this thriving are in the rise of enveloping air pollution. Nitrogen dioxide (NO₂) emission is chiefly responsible for ground-level ozone, a chief element of smog. Besides, it is directly responsible for forming different nitrate compounds that add to the extent of inhaling particulate matter in the beneath environment.

In factory areas, an increase in NO₂ emission can be related to the upswing in the extent of direct fossil fuel utilization in the device of oil and coal. The consumption of petroleum fuel is chiefly noticeable in vehicular transportation, which is in the manufacturing cities in India. We move now to dormitory areas, and an increase in the NO₂ emission can be related to spirals in the high-rise buildings, improper usage of burners, vehicular choking, and the extent of humidity. A sustained increase in population in the dormitory localities is putting coercion on the prevailing road transport infrastructure, perceived in vehicular choking in most cities in India.

Important to acknowledge some of the initiatives by the Indian government in addressing sustainability.

- **The organized introduction of State Mission in composite and galvanic vehicles.** Apportionment of US 89.41 million dollar from the State Clean Power fund for hastening up The State Mission for an Ecologist India. The Environment Ministry's allocation increased by US 67.1 million dollar (apex).
- **The National Mission for Enhanced Energy Efficiency (NMEEE) 4-initiatives:**
 - Perform Achieve and Trade (**PAT**) – It will be considered by issuing certificates for energy savings which are again traded.
 - Market Transformation for Energy Efficiency (**MTEE**) – The focus will be on encouraging the manufacturing of utilities that are inexpensive and energy-efficient.
 - Energy Efficiency Financing Platform (**EEFP**) – To provide required monetary support at reasonable rates for energy efficiency project implementation.
 - Framework for Energy Efficient Economic Development (**FEEED**) – Floating innovative monetary instruments to encourage the production and use of energy efficiency devices by lowering risks for banks and investors.
- India conveyed message at the UN meeting about its **COP-27** commitment towards reaching **Net-Zero** by 2070. Government of India has also conveyed further plan of reducing the *discharge ferocity* of its Financial Output (**GDP**) up to 45 percent by the year 2030.

The focal point of the present discussion is also on the socio-economic and environmental ramifications of first-generation biofuel crops as they battle for food for land and livestock creation. The First-generation crops influence biofuel creation for a long time into the future, as the technologies are well settled and solid creation plans survive.

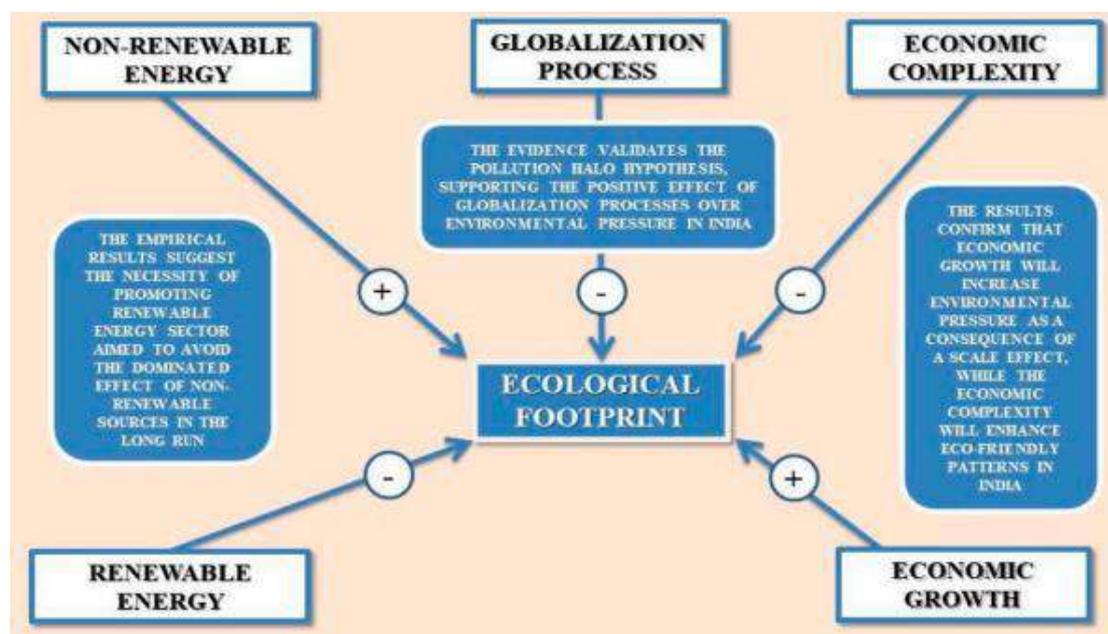
Typically, solid biomass (agro-residue and fuel wood) is used as a source of electricity for heating, baking, and power production. Biofuel is one more utilization of biomass. There are various renewable sources of biomass feedstock for biofuel manufacturing, which include starchy crops, oil crops, cellulosic material, and sugar crops. Hypothetically, biofuels get manufactured from any organic material, but based on the cultivation practices, the process involved, and the type of biofuel crop are grouped as first and next-generation crops.

Universal usage of crop residue covers, and is not exhaustive to, soil mulching, bio-manure, thatching for rural homes, animal feeding, and fuel for domestic and industrial usage.

Despite the familiarity of its value, cultivators burn a considerable part of the crop residues on-farm to ensure the crop grows in a clear area. The energy produced from farming biomass waste can significantly replace fossil fuel, lower emissions of greenhouse gases, and supply renewable energy to close to 1.6 billion humans in emerging nations that yet go without access to power.

A few researchers' work advocates that electricity generation from renewable energy sources has little environmental effect compared to fossil fuels while supplementing infinite power utilization as it may be a beneficial plan for purifying surrounding accomplishment in Indian context. The same gets validated that electricity generation from renewable sources will be of better environmental quality in the province (Refer to Figure 1 self-explanatory).

Figure 1: Renewable energy impacts positively the environment



Source: Graphical presentation finding by Wan, X., Jahanger, A., Usman, M., Radulescu, M., Balsalobre-Lorente, D., & Yu, Y. (2022).

The United Nation's (2015) Maintainable Evolution Targets encompass supplying inexpensive and clean electricity, encouraging maintainable preserving worldly environs, production, and consumption, and guaranteeing service and development. Although, across the universe, 106 crores poorest humans have without power, and 300 crores humans go without non-residue combustibile for baking. The performance is irregular as 75 percent of the 57 crores person (apex.) who secured entry from 2011 onward reside in Asin region. While the number of people left wanting energy came under 100 crores in the year 2017, a downturn of 9.7 crores compared to year 2016.

Conversations with businessmen and clients in these mostly nourishment markets expose entrepreneurs with low teaching levels, below-par information technology connectivity and usage, and fragile property rights, which shows the part of word-of-mouth in these faraway scatter landscapes that employ ‘bricolage’ resource use. Important to highlight India’s latest ranking per Human Development Report by United Nations for 2021-22. India ranked 132 out of 191 countries (69.11 out of 100 percentage basis) ‘Medium’ Human Development category. The country ranked 123 out of 160 countries (76.88 out of 100 percent basis) and was in the ‘Low’ Human Development category in 1990. Therefore, it revealed that impeded progress is made even after 30 years post-economic reforms implemented – **MILES TO GO!**

Table 1: Multidimensional Poverty Index for India’s Population

SDG 12								
Multidimensional Poverty Index ^a			Population in multidimensional poverty					
Year and survey ^b			Headcount	Intensity of deprivation	Number of poor (year of the survey)	Number of poor (2020)	Inequality among the poor	Population in severe multidimensional poverty
Country	2010-2021	Value	(%)	(%)	(thousands)	(thousands)	Value	(%)
Estimates based on surveys for 2016–2021								
India	2019/2021 D	0.069	16.4	42.0	230,739	228,907	0.010	4.2

Source: Human Development Report 2021-22 by UNDP

Table 1 reveals headcount is 16.4 percent in multidimensional poverty, particularly the intensity of deprivation is 42 percent which is very high.

Table 2: Multidimensional Poverty Index for India – Select Components of Overall Multidimensional Poverty

						SDG 1.2	SDG 1.1	
Multidimensional Poverty Index			Population vulnerable to multidimensional poverty ^a	Contribution of deprivation in dimension to overall multidimensional poverty ^a			Population living below income poverty line (%)	
Year and survey ^b				Health	Education	Standard of living	National poverty line	PPP \$1.90 a day
Country	2010-2021	Value	(%)	(%)			2009-2020 ^c	2009-2021 ^c
Estimates based on surveys for 2016–2021								
India	2019/2021 D	0.069	18.7	32.2	28.2	39.7	21.9	22.5

Source: Human Development Report 2021-22 by UNDP

Table 2 exhibited that 18.7 percent of people are susceptible to intricate deprivation. Further, examining the subscription of the distress in Health is 32.2 percent; Education is 28.2 percent in dimension to overall multidimensional poverty. Lastly, the population living below the poverty line is 21.9 percent. While some 22.5 percent of people narrowly live on \$ 1.90 a day (PPP basis).

Let us mention some of the government's initiatives on a few select indicators:

- i. Total no. of people 12,69,442 trained under DDU-GKY (Deen Dayal Upadhyaya Grameen Kaushalya Yojana)
- ii. Total verified applications 8,39,50,000 on National Scholarship Portal
- iii. No. of children 4,10,00,000 vaccinated under Mission Indra Dhanush
- iv. Total no. of free treatments 3,62,45,100 done under PM Jan Arogya Yojana
- v. Total no. of 22,91,30,548 Soil Health Cards dispatched
- vi. No. of beneficiary farmers 11,37,00,000 under PM Kisan Samman Nidhi Yojana
- vii. No. of farmers registered 11,42,07,960 under PM Fasal Bima Yojana (since 18)
- viii. No. of houses 2,71,48,282 completed under PM Awas Yojana
- ix. No. of LEDs 36,86,85,331 distributed under the Ujala Scheme
- x. Total no. of households 2,81,69,724 electrified under Saubhagya (since Oct-17)
- xi. Total no. of LPG connections 9,56,57,999 released under PM Ujjwala Yojana
- xii. A total of 11,68,20,000 Household toilets were constructed under Swachh Bharat

Source: <https://transformingindia.mygov.in/performance-dashboard/> accessed on 7-Mar-23

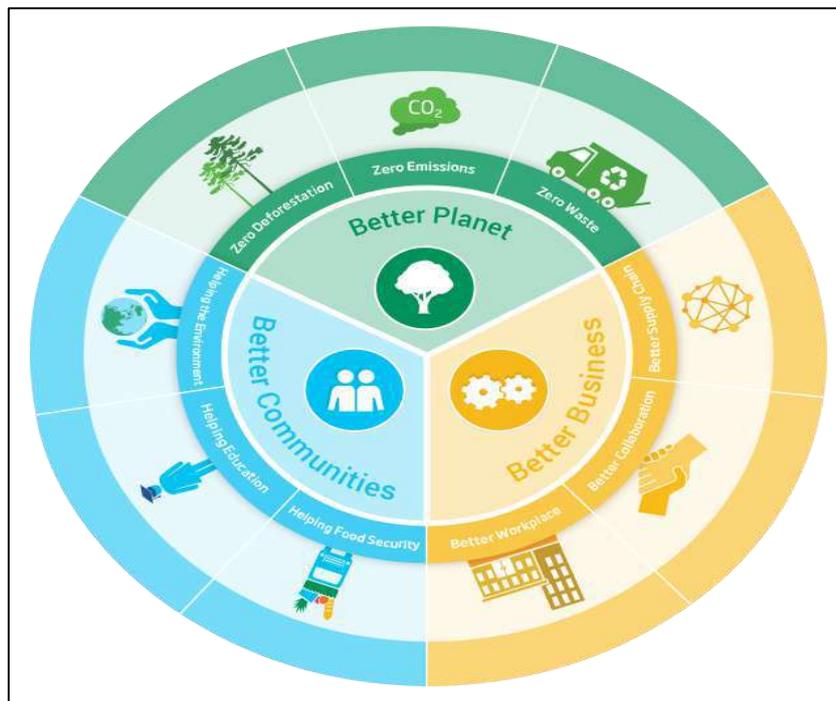
Financial intricacy is without fiscal yardstick conveyed in the arrangement of a state's prolific yield and indicates the composition that materializes to carry and incorporate learning. The theory of financial intricacy illustrates the refinement of prolific format based on two sub-concepts – ubiquity and diversity.

4.0 Conclusion and Implications

The study has highlighted that the after-revolution era in India shows a growth in discrepancies covering environment and community class and between countryside and metropolitan areas. With interest in sustainability that includes sustainable business picking up at a fast pace globally, the need now is for an accepted and clear standard/benchmark for examining corporate and financial environmental, ESG, and circular economy strategies.

Hence, there is a need for India to have a wide-ranging and all-inclusive expansion that will positively impact the populace fairly and equally, particularly the impoverished, businesses, environment & sustainability aspects (refer to Figure 2). Indian government should promote funding in infinite power undertakings and encourage and help conventional power businesses to boost green automation novelty that may subscribe to the work of atmosphere moderation, thereby achieving sustainability.

Figure 2: Sustainability Image



Source: <https://www.google.com/search?client=firefox-b-d&q=Infographics+on+Sustainability#imgrc=dHvE-w37bWzRFM> (Accessed on 9-Mar-2023)

5.0 Scope for Further Research

Future research can include state-wise and industry-wise sustainability aspects with supportive and relevant data so that finding becomes the actionable yielding solution in today’s era.

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Sustainable Development through Green Entrepreneurship in India: A Study

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ABSTRACT

The primary aim of any business is profit maximization. As they continue to look forward to it, there are areas that are overlooked. Industries were found to be major contributors to this problem. In an attempt to reduce the impact of global warming, various governments started encouraging their citizens to go for environmentally viable processes. The emergence of entrepreneurship in India as more people are coming forward to start their new ventures. However, most of the entrepreneurs did not focus on how environmentally friendly these innovations are. Green entrepreneurship is in its nascent stage in India and there is a long way to go. The current paper makes an attempt to study the available literature and focuses on various entrepreneurs who have innovated into domains that help protect the environment. The paper focuses on entrepreneurial ventures in green technologies in India.

Keywords: *Entrepreneurship; Venture; Green technologies; Management.*

1.0 Introduction

In recent times, entrepreneurship has been the most talked about aspect in the business. Even though the detailed definition of entrepreneurship was given by Jean Baptise in the 19th century, the actual work was done by Joseph Schumpeter. This is regarded as an important contribution in the field of entrepreneurship as he viewed entrepreneurship as creating something new by destroying the old one.

The rationale behind promoting entrepreneurship comes as it will act as a vehicle of economic growth and development has been emphasized as the vehicle of economic growth and development. In a country like India, this is very much needed as we ranked low in the index. In the recent past a lot of studies were carried out on the area of entrepreneurship which clearly indicated that there is a positive correlation between economic development and entrepreneurship.

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Entrepreneurship can play a significant role in driving economic growth and development in developing economies like India. By taking risks and bearing uncertainty, entrepreneurs can create new businesses and industries that generate employment opportunities, increase economic output, and spur innovation. Entrepreneurship can also help reduce regional economic disparities by promoting the development of businesses in less prosperous regions. In addition, entrepreneurs can play a role in promoting gender equality by empowering women to start and run their own businesses.

Moreover, successful entrepreneurship can also lead to the development of critical infrastructure such as transportation networks, communication systems, and power supply, which can improve the overall quality of life for people in these regions. However, it's important to note that entrepreneurship alone is not enough to solve all of the challenges faced by developing economies. Other factors such as access to education, healthcare, and basic resources like clean water and sanitation are also critical for sustainable economic growth and development.

It is essential to shift our focus towards sustainable economic development to ensure the long-term survival of our planet and its inhabitants. Entrepreneurs can play a crucial role in promoting sustainable economic development by developing innovative and sustainable business practices that take into account the social and environmental impacts of their operations. As you mentioned, a new category of entrepreneurs, driven by sustainability concerns, is gaining attention from policymakers, researchers, and other stakeholders. These entrepreneurs are focused on developing businesses that prioritize sustainable practices and make a positive impact on society and the environment. They are adopting innovative approaches such as using renewable energy, reducing waste, and promoting circular economy models to achieve their sustainability goals.

Governments and policymakers can also play a crucial role in promoting sustainable economic development by creating policies and regulations that incentivize sustainable practices and penalize unsustainable ones. For example, tax incentives could be provided to businesses that adopt sustainable practices, while penalties could be imposed on those that continue to harm the environment. In conclusion, promoting sustainable economic development is essential for the long-term survival of our planet and its inhabitants. Entrepreneurs can play a significant role in achieving this goal by developing sustainable business practices, while policymakers can create an enabling environment that incentivizes and supports such practices.

1.1 Objectives of the study

This research paper emphasizes upon the Green entrepreneurship initiatives adopted in the select organizations located in Hyderabad. The objectives include the following:

- To understand the green entrepreneurship.
- To evaluate the organizations those are carrying out business operations using green initiative.
- To suggest the suitable measures for sustainable development in green enterprises.

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2.0 Literature Review

To have a thorough understanding of the topic green entrepreneurship, an in depth literature review was done at two stages, i.e, at research work done at the global level, and the involvement of women in green entrepreneurship.

2.1 Global level

York and Venkataraman (2010) in their research paper projected entrepreneurship as the answer rather than that which causes harm to the environment. Their study indicated that, under some conditions the entrepreneurs will add or will go ahead of the efforts made by the government and prevailing companies to achieve sustainable development. The new age entrepreneurs can not only solve existing environmental problems but can extend their support in bringing their organizational camaraderie towards environmentally sustainable products and services. The two authors had come out with a model that helped entrepreneurs to address the environmental uncertainty, innovate and look after the overall set up by engaging their existing organization to avoid environmental degradation.

In the research paper presented by Silajdžić et al. (2015) it focused on the nations that have transitioned economies indicating that they were experiencing the pressure to scale up the entrepreneurial programs which helps in faster growth that reduces the impact on natural resources. It is noticed that entrepreneurs of transition economies appear not to be prepared to take up the challenges or risks pertaining to green entrepreneurship. Further, the government and educational institutions also did not seemingly contribute towards promoting green entrepreneurship.

The survey report prepared by Chiewattanakul et al. (2021) in Southeast Asia, which is one of the fastest-growing regions in the world, points out how entrepreneurship will play an important role in finding solutions to the problems pertaining to climate change. The document also assesses the existing support ecosystem for environmental related entrepreneurs in southeast Asian countries of Myanmar, Indonesia, Vietnam and Cambodia. This narrowed and thus focus shifted towards environmental entrepreneurship initiatives. The green entrepreneurs try to exceed in developing their business by having a greener and sustainable environment. The report also covers details about the organizations that offer support to green entrepreneurs that address issues pertaining to climate change, mitigation, adaptation, environmental protection and challenges.

The study conducted by Pinkse and Groot (2015) reveals that green entrepreneurs are active politically, but when it comes to pursuing them, they get into collective action. This will elevate the problem as they see the incumbents in industry associations which will try to keep away the political influence. Similarly, Burch et al. (2016) study recommends that, despite the high rate of potential in small and medium enterprises, and because they slowly address the problems utilizing less capital, time and personnel to bring innovation for sustainable development. The organizations outside are instrumental in helping MSMEs in the areas of sustainability, overcoming capacity gaps and facilitation of change.

On the front of industry, energy must be taken as a poster example with regard to environmental dangers and its related operations. To substantiate this, Malen and Marcus (2016) studied the use of social, political and economic factors to impact the Clean Energy Technology Entrepreneurship (CETE). The opportunity for clean energy technology comes from the policies that respective governments make.

Pavithra and Kanimozhi (2019) in their research paper on “Green Entrepreneurship: Strengthening Indian Economy by Innovating the Future” revealed that humans are now increasingly becoming more conscious about the environment and related issues. Many individuals have shifted their preference in having environment friendly items. Green entrepreneurs started helping them provide ample opportunity for the start ups to identify and explore innovative ideas in helping find new products for the society. provides opportunity to the beginners who have identified and explored innovative ideas in serving Indian society.

Maryam, Akram and Soheil (2018) in their study on “The Effect of Emerging Green Market on Green Entrepreneurship and Sustainable Development in Knowledge-Based Companies” found that there is a positive and significant effect of the emerging green market on green entrepreneurship and sustainable development. The entrepreneurs were able to introduce many new Green products and deployed technologies.

2.2 Women in green entrepreneurship

There are very few studies that elucidate the positive coherence between ecopreneurship and women, in general. Not many research related works were done in projecting the studies on Indian middle class women with regard to green entrepreneurship. There were many studies which were done favoring women which are inclined towards environmental related businesses. An attempt is made by the authors in this paper to bridge the gap between the specific qualities needed to become an ecological entrepreneur.

According to the GEM 2002 India report (Manimala, 2002), the parameters used for skill and motivation among Indian women towards starting a new business is 3.41 which is nearly equal to the global average of 3.46. While, the support for women entrepreneurship is rated as 2.60 which is much below than the global average. A report prepared by Gender Global Entrepreneurship and Development Institute (GEDI) (2013) surveyed 17 countries, in that India ranked 16th position and hence categorized under least favorable conditions for female entrepreneurship. Further, the report identified that for the development of high-potential female entrepreneurship there has to be a co-existence of encouraging conditions like entrepreneurial environment, entrepreneurial ecosystem and entrepreneurial aspirations.

From the above review of literature, we have come to know that there is increasing momentum of entrepreneurship in the region.

3.0 Research Methodology

The research methodology applied in this research was survey research. Most of the data was collected using existing sources like texts, journals. Magazines, and newspapers.

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Internet search formed the primary basis and was extensively used in gathering the data. The researcher attempted recent data on the given area covering about seven years.

4.0 Green Entrepreneurs: A Study

The government of Telangana is doing tremendous work in the space of entrepreneurship by starting World's largest innovation center near Gachibowli. The T-Hub stages many emerging startup ideas and innovations. There are few in the line of sustainability development ventures:

1. Hello Dustbin
2. Marut Drones
3. Ewoke Studio
4. Banyan Nation
5. Coral Innovators
6. Eto Motors
7. D'Cal Hardwater Softner

4.1 Hello Dustbin

Karthik Bollineni, the Director of Hello dustbin Pvt Ltd. is a waste management company based at Hyderabad.

Hello Dustbin is a social enterprise start-up driven by a vision to solve the waste management problems in the society. It collects waste from households, offices, schools and other commercial places through web and mobile applications for recycling purposes.

The company is also working with government bodies to eradicate plastic pollution in rural and urban communities. The program goal is to curb plastic pollution and reduce the carbon footprint in districts. Also to spread the awareness on waste segregation and drive social responsibility among citizens. To indulge in a continuous and sustainable process for making communities environment friendly.

4.2 Marut Drones

This is a startup innovation owned by Prem Kumar. He had a team led by talented people working towards solutions in drone applications. His entrepreneurial venture will help individuals tackle the menace of mosquitoes in the residential areas. With his innovation, he was able to curtail the spread of malaria and dengue cases. In an interview, Prem expressed that, despite independence of 75 years, we were unable to tackle the mosquito menace. His startup venture will help people combat the same by having hepiCopters in combating the same.

4.3 Shruti Rawal

Ewoke studio is yet another passionate India about driving sustainability in the apparel and textiles industry, and conscious consumption.

In a discussion with the founder, it is revealed that a design label for sustainable fashion. She studied at the National Institute of Fashion technology. The company Ewoke started with a vision to empower women with the clothes they wear while making a positive impact on society and the environment. In an interview, she shared how an eco-conscious person emerged from the existing studies.

She was always thinking of providing an alternative and that's how Ewoke became a reality. Ewoke was started to address the issue of climate change. In order to do this, the fabrics that used mostly bio degradable and recycled items which leave a minimum carbon footprint.

4.4 Banyan Nation

Banyan nation is yet another example of sustainable development, started by Rashi Agarwal in 2013, where plastics are recycled using data intelligence and that integrate large supply chain operations. Rashi left a good job in the USA to start this venture

4.5 Sikander Reddy Thandra

Sikander Reddy started the new startup in Coral Innovation which is a mobile based app wherein it takes in to account the reading and drastically reduce the time taken by monthly billing cycle. It as a self-meter reading app that will apply.

4.6 Rajeev YSR

Yet another innovation, started by Rajeev, Vice President of Eto Motors. In these days of pollution, he introduced EMaas Electricity and said the most polluted cities in the world are in India. We are India's no. 1 EMaaS (Electric Mobility as a Service) company. EMaaS helps in finding a right platform.

4.7 Uday of D'Cal

Uday start an innovation in the area of finding solutions to the hard water. The device that Uday has prepared will reduce the Hard Water Softner explained how their invention (device) turns hard water soft for one-tenth the price. It is a hassle-free process as the installation doesn't require any pipes, plumber or electricity. All a user has to do is drop the bottle-shaped device in the water tank. The product has received an overwhelming response and they are exporting to the USA also.

5.0 Conclusion

It's always pleasant moving towards a green economy as it has the potential to achieve sustainable development thereby eradicating poverty on an unprecedented scale, with speed and effectiveness. This potential derives from two concurrent changes. First, there is a changed playing field in which our world and the risks we face have materially changed. These changes require a fundamental rethinking of our approach to the economy. Second,

there is a growing recognition that the natural environment forms the basis of our physical assets and must be managed as a source of growth, prosperity and well-being.

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Sustainable Policies and Practices: A Case Study Approach

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ABSTRACT

This research is a case study address to the unfolding of perspectives, thoughts and practices to sustainability in the fashion and textile sector. Textile industry leaders and practioners have their own techniques for sustainable approach. The story of their success is the story of “sustainability” at the primary level. This study creates a myriad picture of the measures taken towards sustainability which impacts the lives and occupation of people involved in the value chain, waste generators, and largely the consumers. The industry leaders selected for this research have revived the Indian traditional culture of practicing Sustainability through craft. The magnificence of the Indian crafts is resurrected through reaching out to the global market by being in the trends. With the contribution of craftsmen, the industry leaders and practioners have displayed a whole new approach to sustainability. Currently the model of Circular economy (textile) has presented a \$500 billion opportunity to the fashion and textiles industry.

Keywords: *Circular economy; Crafts and sustainability; Sustainability in fashion; Waste management; Social accountability.*

1.0 Introduction

Textile industry leaders have used technology and digital tools to join the dots of Sustainability. Through collective efforts, waste moves in a circular direction and ends up as the raw material instead of in the landfill sites. The two case studies conducted in this research throw light on the diverse journeys of the dynamic entrepreneurs. It was seen that a lot of relevant work was being done in the area of sustainability. Sustainable corporations are working in partnership with multiple stakeholders within the community for all round development leading to success, financial benefits and stability. Collaborative works are being carried on within business houses, academic institutions and civil associations. These organizations not only carried out training, research, and experimentations on sustainability and CSR but also worked with multiple backward communities in order to make them powerful and improve earnings through livelihood creations.

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1.1 Objectives of study

- The study aims to understand the various sustainable challenges faced by the textile industry
- The study aims to comprehend the measures taken by the Industry leaders in the path of sustainable development

2.0 Literature Review

The need to preserve the environment for maintaining harmonious existence of human beings amidst nature is the meaning of sustainability (EPA, 2016). Sustainability was first explained in the Brundtland Commission of 1987 as allowing the needs of an entire community to be fulfilled without hampering the same needs to be met by the future community (Brundtland Commission, 2016).

One of the major reasons of waste is the quick attainment and rejection of goods (Kate & Lynda, 2012). All the merchandise that are being produced in a short span of time are becoming unwanted just as quickly due to the ever changing preferences of the people. As a result the environment is struggling with mounting waste. The sustainability test of the industries is linked to globalization of businesses. Due to severe competition the global brands have outsourced its production to the developing countries. The developing countries in turn have put economic development before environmental protection although the industries ostensibly have made many rules and regulations to protect environmental concerns.

However governments have not been able to form successful methods to implement them. In reality the governments of these countries support only the economic growth and there are no regulations to protect the environment (Magnus & Michele, 2016). Thus achievement of sustainability is not only the prerogative of the researchers, govt., consumers and activists but also the consciousness of the industry leaders who have thought of novel methods to fight sustainability challenges.

2.1 Hypothesis

To understand if the industry members are aware of the sustainable challenges facing the environment and if any measures are taken to reach the sustainable goals

3.0 Research Methodology

3.1 Research design

Case study research method was selected for this study as this method requires careful observation of a unit e.g. unit of a person, family, institution, or even an entire community (Research Methodology, 2019). It is a method of study in depth rather than breadth (Marrelli, 2007). Case studies emphasises on in depth details of a selected condition

or event. Case studies are suitable for finding or analysing the unit of study, related practices that occur and its interrelationship (Houghton C, 2015).

Therefore case study is fundamentally a concentrated examination of a particular unit of study (Johnson et al, 2007). Case studies are most suitable for observing social units (Marrelli, 2007). Through the case study method interrelationships of an individual factor of a society or any part of society may be analysed. For example case study is suitable to study the life of a prisoner.

Through this method the researcher can take necessary permissions and then cover the daily aspects of a selected prisoner's life. Discover his relationships with others, his thought progression through time, his day to day conduct etc. Case study is therefore most suitable for conducting an exhaustive study on a person or a social unit (Gray, 2009).

While conducting case studies the researcher generally assumes that there is uniformity in the human nature although human nature may change according to circumstances (Research Methodology, 2019). Due to the individualistic approach case studies are often not comparable. Some scholars do not find this method scientific as the subject of case study gives information according to his own perceptions and this may not be significant scientifically or applicable universally (Butina, 2015).

There is always a lingering threat of prejudice (Bain, 1934). Case studies are also time consuming and expensive (Research Methodology, 2019). Consequently the case study method was found suitable for the present research.

3.2 Case study-1

The first case study was carried out on an industry expert in the field of sustainability, Dr. Nayan Mitra, Founder-Director - Sustainable Advancements (OPC) Private Limited, e-mail: mitra.nayan@gmail.com website: www.sustainableadvancements.com

This is a woman owned micro enterprise. This company aims to promote the Ps of the SDGs, through a two way pronged approach – Advocacy and Implementation. We aim to bridge the gap between ideas and action, communities and businesses, India and the rest of the world. To introduce the word Sustainability in a layman's term, it means 'To live and to let live to live on!' The concept has been around since 1994 when John Elkington first coined the term 'Triple Bottom Line' which was, for the longest time known as the 'Sustainability Framework.' However, it had a myopic vision and only spoke of planet, people and profit; whereas the Sustainable Development Goals (SDGs) as put forward by the United Nations, speaks of the 5 Ps that are key to Sustainability – Planet, People, Prosperity, Peace and Partnership.

The vision at OPC is to bring together and work in collaboration with the different stakeholders in the society, for the society and to bring about peace, prosperity and continuity. Hence, they work with Corporate houses, Universities, Civil societies, individuals and communities, where they drive the common agenda of sustainability. OPC has some expert committee members and partners with whom they work closely. On one hand they conduct coaching, documentation, research, publication on Sustainability and CSR; on the other hand,

they work with various disadvantaged communities, empower them and raise their standard of living through livelihood generation. They work with over 100 women led micro enterprises in the rural segment. The biggest strength of this organization is that they have a niche clientele of a loyal set of customers who really care and also indulge in word of mouth publicity. This helps them to create an impact at a multi stakeholder level.

Each of their products sends out messages and is known as ‘impact bags’ which can be customized them as well. Their books, publications and researches are well accepted by both international and national fraternity, which gives them faith that there is collective thinking and that transformation is really happening. In the last few years, they have worked on issues regarding but not limiting to circular economy, corporate social responsibility (CSR), sustainable organizations, to name a few.

To conclude, the concept of sustainability in India needs more awareness – a lot of it is already ingrained within our culture, and hence has lost its novelty. This has to be revived. It is not an easy journey, but incredibly exciting. There is a need for more entrepreneurs in this field who can dare to dream for them as well as for the world.

3.3 Case study-2

The second case study was carried out on Ms. Archana Vashist Panda, Operations Manager & Lead Accreditation Auditor at Social Accountability, e-mail: apanda@saasaccreditation.org Social Sustainability is about creating sustainable enterprises through social accountability. Having audited companies throughout the world and interacted with male and female workers of different age groups, religions, languages, it has been realized that though a lot has been done, yet much still remains to be done in India to create sustainable businesses. To many, the word ‘sustainability’ is synonymous with environment, carbon foot print, GHGs, conservation of resources etc. While this may be true, it is impertinent to emphasize the importance of social sustainability, without which, the overall goal of a sustainable enterprise may not be claimed.

Social sustainability means advancing human rights at workplaces and creating a world where businesses, and communities thrive together. This is possible only when business decision-makers understand the significance of developing respect for and investing in, its people. The belief system of SAI and SAAS is to achieve and demonstrate social sustainability, organizations must measure and improve and be accountable for their workplace social practices. In recent times, SA8000, social accountability certification and social fingerprint services have become important tools for enterprises wishing to gain credibility within global (and increasingly domestic) supply chains.

Practices & principles of social sustainability - Social sustainability can be achieved by recognizing and adhering to universal workplace practices such as the Universal Declaration of Human Rights and International Labour Organization (ILO) conventions. The SA8000 standard is based on these principles. Originally created by SAI in 1997, SA8000 is world’s leading certification program. It also provides a roadmap and a credible, holistic framework allowing organizations of all types, in any industry, and in any country to

demonstrate their dedication to the fair treatment of workers. Recognizing the significance of 'management systems' underpinnings of SA8000 performance elements, SAI went on to develop social fingerprint tool. SAI believes that every company has a unique social fingerprint – a unique mark that shows the world how they do business. Many companies across the world have used SAI's social fingerprint tool to demonstrate their commitment towards improving lives of workers step-by-step. Methodologies to measure and improve social performance and social sustainability, based on internationally recognized standards of decent work, SA8000 applies a management-systems approach to social performance and emphasizes continual improvement—not checklist-style auditing the international standard comprises of nine elements: child labor; forced labor; health & safety; freedom of association and right to collective bargaining; discrimination; disciplinary actions; working hours; remuneration; and management system. Although not all organizations are ready for social certification to the entire standard, all can benefit from management system approach to sustain and improve performance over time. SAI's Social Finger print tool is: a program of ratings, trainings, and toolkits to help businesses measure and improve management of its social obligations regardless of its current performance, management maturity, size and nature of its business. Social Fingerprint techniques have been successfully used to improve social performance of companies, both large and small, including waste pickers operations in Brazil—a program recently initiated to replicate in India.

Pathway to win-win - SAI's SA8000 certification and social fingerprint social accountability initiatives improve wellbeing of workers while establishing pathways towards an improved level of social performance. In doing so, they also provide credible level of assurance to buyers, government and interested parties. When effectively implemented, they also improve profitability and competitiveness, thereby creating a sustainable win-win for workers, companies and society as a whole.

4.0 Data Analysis and Interpretation

The concept of sustainability alone cannot survive without any social relevance of it since social sustainability is about making socially responsible enterprises. Worldwide, the USD 1.3 trillion textile industries utilize more than 300 million people along the value chain. It is only through social responsibility and accountability that there can be reasonable use of human workforce. Social responsibility is the basis of sustainability. The case studies of these sustainable enterprises rests on the basis of Sustainability. The teamwork of thoughts from industry practitioners who have done additional work to imbibe sustainable practices in their daily lives is worth following and imbibing. This is the research of the sustainable story of entrepreneurial success through adopting sustainable ideas, research and social responsibility.

The case studies help to understand the various sustainable challenges faced by the industry. These elucidate the measures taken by the Industry leaders in the path of sustainable development. The results supported the Hypothesis that the industry

members are aware of the sustainable challenges facing the environment and have taken measures to reach the sustainable goals.

5.0 Conclusion

Many other sustainable organizations assessed and improvised their work environment so that they are responsible for their social sustainability and community practices. These are important tools for gaining community responsibility certifications and as a result social fingerprint services have become important tools for companies wanting to increase credibility within global and domestic supply chains. Lot of sustainable entrepreneurs are operating from the tribal belts of the country which are primarily women dominated. This assists not only in heralding a sustainable social change but also increasing the tribal community status. At the grass root level technological advances are continuously being shared with the artisans so that millions of buyers and sellers of handmade sustainable products can be connected. As a result artisans can now put up on sale their products not only to the local retailers but also to global retailers for the expansion of their businesses.

A number of designers working on the concepts of sustainability are bringing waste back as raw materials through the technique of upcycling. Pre consumer waste materials are gathered from the fashion industry and designed to create functional products. This has turned into a worldwide sustainable movement which offers consumers reliable and superior quality upcycled substitutes to their basic needs. Various sustainable enterprises are involved in designing and developing cloth bags to reduce the consumption of plastic bags. Through the life cycle assessments done by the environmentalist it is established that cotton bags are eco-friendly if used for a long period of time. Its performance is further improved if finishes of pest repellents were added to it. All these features are taken into account while creating sustainable cotton bags.

Researchers and entrepreneurs are also involved in recycling the waste plastic so as to reduce synthetic waste from reaching the landfills. The plastic is recycled using eco-friendly chemicals and processes and caters to industrial needs of plastic in sectors e.g. the automobile sector, house hold sectors, commercials establishments etc. Thus it is concluded that sustainable business development has a huge scope of growth in India as the country and the world at large grapples with the problems of environmental damage caused by unsustainable business practices. A lot of entrepreneurs are hugely successful in creating sustainable business ethics and this research paper gives relevant examples to lead the way in sustainable development.

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A Conceptual Study on Corporate Governance and Sustainability

*K. Raghuveer**, *Atluri Sree Ram*** and *B. Hari Babu****

ABSTRACT

Improvements in quality, competitiveness, responsibility, and trust are just few of the outcomes of a management approach that prioritises sustainability. Not only has been linked to boosting the worth of businesses, but it has also been linked to enhancing their reputation. Yet, this idea has many facets and variations, and this might cause incongruity for corporate executives whose only goal is to boost sales. As a result, environmental, social, and economic aspects of corporate governance have become increasingly important. The purpose of this paper is to argue for the merits of incorporating ecological responsibility and corporate behaviour into organisational management by discussing its advantages, disadvantages, and potential applications. In addition, many sustainable model governing bodies outlined in detail to be able to compare and contrast their individual components. We determine that cooperation is essential across models, and that a wider range of theoretical development is required to assist in the adoption of exemplary corporate behaviour practises and guarantee long-term viability.

Keywords: *Competitive advantage; Corporate governance; Governance models; Sustainability; Prospects.*

1.0 Introduction

Sustainability has shown its capacity to encourage balanced growth across three factors: financial, social, and environmental in a time when the state of the global economy will be characterised by inflation, increasing raw material and labour prices, and political turbulence (Liu & Zhuang, 2013). The business world, alas, focuses mostly on the first aspect (Chardine-Baumann & Botta-Genoulaz, 2014). This article uses a theoretical examination of empirical research to look at the connection between ecological responsibility and corporate behaviour problems. To further enhance knowledge of the topic of durability in the application current models that have been proposed for corporate governance may be adopted in organisations future events are provided. In in order to locate and explain the components of sustainable governance systems, this study attempts to explain the origins of these theories and models that support them, also the outcomes of their acceptance into organisational management.

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A few of the many advantages of sustainability observed in the management field include improvements in food quality (Bekele, Bosona, Nordmark, Gebresenbet, & Ljungberg, 2012), competitiveness (Aigner & Lloret, 2013), and accountability and trust (Haywood, Trotter, Faccar, & Brent, 2013). These outcomes account for the recent proliferation of scholarly works on sustainability, which has not helped clear up confusion in the area due to a lack of a common definition of the idea of sustainability (Gibbs & O'Neill, 2015). The complexity of this thought stems from the fact that it is multifaceted and varied (2012) Renukappa, Egbu, Akintoye, & Goulding. In other instances, corporate executives prioritise sustainability merely as a way to raise their brand's visibility in the public and enhance sales (Boukherroub, Ruiz, Guinet, & Fondrevelle, 2015; Galpin, Whittington, & Bell, 2015).

The notion of sustainability encompasses not just the impact of businesses on issues of the economy, society, and the environment (such as energy conservation, climate change reversal, and biodiversity protection) (Ha-Brookshire, & Norum, 2011). In practise, sustainability and social responsibility exist side by side; businesses openly incorporate these ideas into their operations, giving rise to ideals and encouraging actions that go beyond the norms of the host nation (Velázquez, & Vargas, 2012).

1.1 The history of sustainability

Sustainable development has progressed via three main phases. During the first time phase, labelled "Pre-Stockholm" (1972), religious ideas and customs were very influential. The Judeo-Christian canon, for instance, recognises man's inherent claim to rule the cosmos. The indigenous peoples of North America also held a holistic view that emphasised harmony with the natural world. The second time frame (1972-1987) saw the most significant growth in the construction of the idea from the UN-sponsored Stockholm Conference in 1972 through the World Commission on Environment and Development (WCED) in 1987, there has been discussion of sustainable development. (2000) (Mebratu). During the third phase, referred to as "Post-WCED," the United Nations Conference on Environment and Development (1992) in Rio de Janeiro, Brazil, brought ecological change to the attention of world leaders (1987). 2012 (Dauvergne).

The Brundtland Commission's (WCED) report, *Our Common Future*, defines sustainable development as "development that meets the needs of the present without compromising future generations' ability to meet their own needs" (WCED, 1987, quoted 2008, p. 215; by Kajikawa. At the time, the 1992 Rio conference in Brazil was seen as the most effective global example of sustainable development. Five documents, including the Rio Declaration on the Environment, Agenda 21, the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and the Declaration of Principles on the Management, Conservation, and Sustainable Development of All Types of Forests, were all incorporated into one another:

- Proclamation of Rio Environment, Agenda 21
- Framework Convention on Climate Change

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- Biological Diversity Convention Diversity
- Declaration of Management Principles, Conservation, and
- Sustainable Forestry Development for All Forest Types (Pierri, 2005).

After twenty years Rio, renewable energy met fewer than 15% of the world's energy demand in 2011, the International Energy Agency claims (IEA). The situation is considerably worse for companies with a reputation for doing business ethically. There is little likelihood of the world reaching a tipping point since so few countries and enterprises have included the national conversation about sustainability policy and commercial strategy (Fernando, 2012). Companies that put profit maximisation ahead of social responsibility often abuse their market power or engage in other anti-competitive practises that diminish their contribution to society (Santos, 2012). Increased healthy finances are related to performance in this field, competitiveness, and innovation, highlighting the need of an environmentally friendly organisational strategy in light of the current circumstances (Cronin, Smith, Gleim, Ramirez, & Dawn, 2010).

Universities, on the other hand, are places where people may go to further their own education and expand their understanding of the world, but whether or not they are also learning organisations is questionable considering how few of them actually help society progress over time (Albrecht, Burandt, & Schaltegger, 2007). Developing a connection between individuals, organisations, and society requires universities to include new aspects into business administration programmes to better equip future managers should act with greater awareness and flexibility, guided by sustainability and competitiveness in a dialogical manner. (Palma, Oliveira, & Viacava, 2011). Future professionals can better understand the moral foundations for decisions on which method or strategy to take if they receive training in ethics as it relates to sustainability, for instance (Biedenweg, Monroe, & Oxarart, 2013). Third, universities might benefit from taking cues from corporate sustainability reporting activities in order to better integrate sustainability into their own systems (Lozano, 2011).

Sustainability encompasses not only the impact of businesses on economic and social issues, but also the impact of environmental concerns (such as energy conservation, climate change reversal, and biodiversity preservation) (Ha-Brookshire, & Norum, 2011). In practise, sustainability and social responsibility exist side by side; businesses openly incorporate these ideas into their operations, giving rise to ideals and encouraging actions that go beyond the norms of the host nation (Velázquez, & Vargas, 2012).

Corporate sustainability is the most pertinent business issue for a firm in the long term, and it is also the most pertinent subject in financial and economic systems, thus outcomes and conclusions should reflect this. Financial growth and sound decision making on the cost of capital, capital budgeting, investment returns, and working capital management are essential for sustainable practises to be implemented in an organisation. Last but not least, businesses should disclose their environmental initiatives to win back consumers' trust and loyalty (Almansoori 2018).

1.2 Corporate governance history

There are three distinct time periods in the development of corporate governance. The first, managerial capitalism (1932–1976), offers independent management from property owners and is grounded in agency theory. The strategy was criticised by owners who saw that management were using the company for their own financial gain, which brought to light the need for new methods to deal with governance problems.

The second phase of Jensen & Meckling's history started in 1976 and was characterised by capitalist shareholder value. It does this by using stock-based remuneration as a mechanism to match top management goals with shareholder goals. The creation of stakeholders who value the organisation for reasons other than only its financial return—that is, as a tool of achieving a goal—is the final step. Freeman proposed merchants and customers in 1984. (Kakabadse, Mostovicz, & Kakabadse, 2011). Shareholders in the contemporary financial system do not own shares, whereas shareholders do. It is anticipated that future collaboration between these two organisations will produce a self-sustaining system of new capitalism (Bonnafous-Boucher, 2005). Stakeholders are defined as any entity that “can affect or is influenced by the fulfilment of the organisations’ objectives” (Freeman, 1984; referenced by Spitzeck, 2009, p. 496).

As a series of procedures used to manage and direct firms, the word “corporate governance” refers to these procedures. The relationships between management, shareholders, and other stakeholders are the main emphasis of corporate transparency. The best company governance practises safeguard the interests of all parties involved (Cuneyt-Arslantas & Afacan-Findikli, 2013). This system is also described as “a framework for organising relations between shareholders, the board of directors, management, and other stakeholders” by the Organization for Economic Co-operation and Development (OECD) (OECD [Organisation for Economic Co-operation and Development], 2004, quoted by Guo, Smallman, & Radford, 2013, p. 257).

Honoré, Munarib, and Pottelsberghe (2015) reference the OECD (2004) as saying that “strong corporate governance provides enough incentives for the board and management to pursue goals that are in the best interests of the company and its shareholders and permits effective monitoring.” In example, sustainable governance is frequently utilised to anticipate and address possible threats to a company's reputation in the public and legal arenas (Blowfield & Dolan, 2010; referenced by Li, Zhao, Shi, & Li, 2014).

By attracting and retaining investors, sound corporate governance may help a company increase its market value. According to a global poll on the subject, investors are willing to pay a premium for businesses with solid governance practises and frameworks. This premium is noticeably higher in Europe, where demand to provide shareholders with better information is still present, particularly on the continent's capital markets in the UK and the US.

As part of the OECD's basic international corporate governance principles, businesses are urged to promote openness, fairness, ethics, responsibility, and honesty in their interactions with shareholders and other stakeholders (Lai & Chen, 2014). The “OECD

Principles of Corporate Governance” serve as a reference manual that defines a standard for corporate formation requirements and can be consulted by stock markets, investors, firms, and other stakeholders. These ideas brought about reforms in the areas of shareholder rights, fair treatment, stakeholder participation, openness, and Supervisory Board duties. The “Principles” were revised in 2004 after being initially adopted in May 1999. (Rosen, 2007).

Literature on governance has only just begun. The most challenging aspect of managing a supply chain is getting everyone to cooperate, according to recent research. This is due to the fact that the manager of the supply chain’s actors is now in charge of the cost-benefit analysis of the business connection, worldwide product quality attention, competitive strategy, and greater global attention to environmental issues (Vurro, Russo, & Perrini, 2009, cited by Li et al., 2014).

2.0 Governance in the Workplace and Sustainability

The benefits of combining governance and sustainability strategy include increased CSR (Sharma, 2014), higher organisational value (Klettner et al., 2014), and results in these capacities (Janggu, Darus, Zain, Yussri, and Sawani, 2014). Last but not least, there is a lot of cooperation with both the suppliers and other stakeholders, which equates to adhering to sustainable governance principles (Gimenez & Sierra, 2013; Li et al., 2014).

According to Gimenez and Sierra, managing sustainability throughout the supply chain is a major challenge for businesses (2013). To guarantee that their suppliers are similarly environmentally conscious, many businesses have put governance procedures in place. Gimenez and Sierra (2013) examined the two approaches of supplier assessment and supplier collaboration in an effort to improve environmental performance. A survey was distributed to 109 German managers in August of 2009. The findings indicated that both strategies have a positive and synergistic impact on environmental performance and that assessment aids in facilitating cooperation between them.

Using agency theory, Janggu et al. (2014) analysed the impact of corporate governance on the long-term viability of one hundred publicly listed Malaysian companies in 2010. The findings indicate that the composition and quality of the board, as well as the process by which its members are selected, have a major impact on the longevity of an organisation.

Klettner, Clarke, and Boersma (2014) conducted a similar investigation, this time looking into how fifty Australian businesses implemented corporate governance practises related to sustainability goals. The study assessed companies’ annual reports and discovered significant development in incorporating sustainability into business processes. Financial benefits may be expected by incorporating both the board of directors and the general manager into sustainability plan development, as shown by the study’s findings. Thus, sustainability is essential to maintaining or increasing the value of the company.

Sustainable governance is still a relatively new idea. Li et al. (2014) examined how CSR initiatives impacted target companies’ and their suppliers’ long-term viability in the

textile sector. Based on the theory of sustainable development, seven competitive sustainability traits were described, and the benefits of adopting sustainable governance were highlighted. These characteristics include consumer demand traits, regulatory capacity of the government, outreach capability of non-governmental organisations (NGOs), supply chain density, transaction complexity, centrality of the focal enterprise, and supplier capabilities. The authors found that effective supply chain governance necessitates strong coordination between internal corporate governance and business stakeholders from the standpoint of external governance. Also, the authors argued for deeper examination of the effectiveness of governance in actual world settings as well as additional research into the effectiveness of supply chain operations in light of sustainable governance principles.

Sharma (2014) investigated the relationships between CSR, corporate governance, and sustainability in India by utilising a correlation analysis. In 2009–2010 and 2010–2011, data from S&P CNX Nifty-listed firms' annual reports and sustainability reports was gathered. The author discovered a strong association between CSR and sustainability, a weak positive relationship between sustainability and corporate governance, and a weak negative correlation between sustainability and corporate governance using the Spearman coefficient.

2.1 Corporate governance and sustainability challenges

There are a number of obstacles that must be overcome in this field, such as a lack of understanding of the issues at hand and the need for better stakeholder alignment and collaboration (Lacy & Hayward, 2011; Gnan, Hinna, Monteduro, & Scarozza, 2013). (Formentini & Taticchi, 2015). Additionally, proof of the efficiency of sustainability committees in reacting to government pressure is essential (Krechovska & Prochazkova, 2013). (Ortiz-de-Mandojana, Aguilera-Caracuel, & Morales-Raya, 2014).

Employers' ideas on sustainability are crucial. In order to address this issue, Lacy and Hayward (2011) worked with the United Nations Global Compact to interview over 800 chief executive officers (CEOs), the majority of whom were aware of the significance of the challenge they face in integrating sustainability features with their core businesses. In this regard, there is widespread agreement that corporations may contribute significantly to promoting a more sustainable economy if doing so is consistent with their objectives.

Local public services, according to Gnan, Hinna, Monteduro, and Scarozza (2013), have led to a re-evaluation of the role of government. To support the implementation of public policy through stakeholder involvement, new public management is needed. In recent years, modern tools like human resource management and control systems have been employed to assist in achieving these objectives. To learn more about ways to encourage stakeholder engagement in corporate governance, a study based on a theoretical discussion and empirical research on 37 public service organisations was conducted.

By the employment of some "new public management" tools, such as the ISO [International Organization for Standardization] 9000 quality standards and the ISO 14000 sustainability standards, there is an effort to promote new kinds of organisational behaviour in decision-making processes. Corporate governance must take stakeholders' interests into

account and should put both shareholders' (profit maximisation) and stakeholders' (involvement) interests first. Because they have not addressed issues with their corporate governance structures, agencies have not improved their performance despite the application of OECD standards (Gnan et al., 2013).

Corporate sustainability is the capacity to positively affect economic, social, and environmental development via corporate governance practises and the company's market position, as described by Krechovska and Prochazkova (2013), who also explain the problems of sustainability and governance. While businesses are cognizant of sustainability's importance to their long-term success, the research shows that this awareness has not translated into action (especially in small and medium-sized enterprises). But, companies care mostly about the bottom line.

Notwithstanding the importance of voluntarism in achieving sustainability objectives, the organisational setting must also be considered. Corporate governance practises throughout the world have converged, say Ortiz-de-Mandojana, Aguilera-Caracuel, and Morales-Raya (2014). This convergence is due, in part, to the fact that both regions share similar norms of behaviour, laws, company globalisation, and investment activity. To determine whether or not national institutional setting influences management's success in promoting environmental sustainability, the authors utilised the "Bloomberg" website to distribute a questionnaire to 210 enterprises in 14 countries throughout North America and Europe. From what we can see, stricter environmental restrictions reduce the correlation between a high proportion of independent directors and environmental sustainability. The correlation between the autonomy of the chief executive officer and the autonomy of the board of directors also led to the same conclusion. Ultimately, it was shown that national institutional factors are not necessary for the effectiveness of environmental committees in promoting environmental sustainability.

Formentini and Taticchi (2015) emphasise that although collaboration among many participants in the productive sectors is essential to achieving sustainability, academics and professionals are focusing more on the role of governance in sustainable supply chain management. They give an empirical analysis of seven case studies that incorporates contingency theory, the possibility of strategic alignment, and the idea of organisational resources in order to close this gap in the research. As a result, they were able to identify three different types of sustainability profiles and classify governance systems according to their level of formalisation and cooperation (leaders, professionals, and traditionalists). The empirical results, according to the authors, can both help professionals carry out sustainability activities at the supply chain level and academics create theories in this field.

2.2 Opportunities for corporate governance and sustainability

The development of fresh techniques that strengthen both notions' credibility, a deeper comprehension of both ideas (Aras & Crowther, 2008), and overall advancement in sustainability are all possibilities (De Marchi, Di Maria, & Ponte, 2013). Yet, MNC representatives haven't been able to help with stakeholder contact (Geibler, 2013), which

calls for investigation, especially by identifying factors that influence effective sustainability certification.

Aras and Crowther (2008) investigated the relationship between corporate governance and sustainability in Europe by looking at the FTSE100 and its corporate governance standards (the 100 largest companies listed on the London Stock Exchange based on market capitalization). Regrettably, there was no correlation between the two factors. With more details about the difficulties, such a correlation can be discovered. Therefore, it is crucial to convey information regarding corporate accountability and environmental practises.

According to Michelin and Parbonetti (2012), who examined 57 US and European companies listed on the Dow Jones Sustainability Index (DJSI) to ascertain how the composition, leadership, and structure of their boards of directors affected their sustainability disclosure, good governance and the disclosure of corporate sustainability data to stakeholders are two complementary mechanisms of legitimacy.

The findings of the aforementioned study suggest that in order to comprehend the impact of board composition on sustainability disclosure, the conventional and constrained distinction between directors with privileged information and independent directors needs to be enlarged. It is critical to do background checks on each prospective board member since there is a significant association between the number of “community influential” board members and sustainability disclosure, particularly with regard to environmental and strategic information. A framework for accomplishing this goal naturally comes from corporate governance given the diversity of sustainability and corporate governance requirements.

Regulation is therefore of utmost importance for sustainability and corporate governance. According to De Marchi, Di Maria, and Ponte, businesses are under increased pressure to consider environmental concerns (2013). The value chain approach is used to investigate how successful businesses, in view of the dispersed nature of production among geographically dispersed organisations, integrate environmental considerations into their processes. The use of governance systems to improve the environmental performance of its partners along the value chain is then demonstrated in two diverse case studies of well-known furniture manufacturers.

Standards or the advice of subject-matter experts can both be used to guide corporate governance mechanisms. The first mechanism is the most effective in promoting environmentally friendly production methods and increased energy efficiency. Because it enables businesses to identify the environmental implications that must be addressed, offer the tools necessary to do so, and inform suppliers of these demands. To lessen the product’s environmental impact, the second strategy is implemented systemically. The creation of a research agenda in this area is supported by the writers.

According to Geibler, certifications have grown in number and importance in the business sector in an effort to address unsustainable patterns of production and consumption around the globe (2013). The demand from NGOs and other organisations has increased, and as a result, certifications and standards that purport to address the value chain issue have arisen. The first international palm oil standard is evaluated by the author, who also identifies

a number of elements required for the achievement of governance-based sustainability, such as stakeholder balance, cost-benefit analysis that is favourable, specific sustainability goals, external verification, coverage of the entire value chain, learning policies, regulations that supplement laws, and scientific monitoring.

Barkemeyer, Lutz, and Lee (2015) note that the increasing participation of multinational corporations in global governance has drawn praise and criticism for its potential to improve governance effectiveness and its lack of democratic legitimacy in their discussion of governance as a tool for sustainability. These writers assess the effectiveness of a transnational governance structure known as corporate sustainability reporting in accordance with the Global Reporting Initiative (GRI). According to the authors, the GRI has increased the incidence of sustainability reporting, particularly among companies in Asia and South America. However, the reporting provides remarkably comparable data across nations and businesses, which does not reflect materiality concerns, limiting the GRI's ability to produce desired results. In conclusion, it doesn't seem that the GRI has facilitated better communication between companies and their stakeholders.

3.0 Sustainable Governance Models

The growing acceptance of outsourcing has resulted in a loss of control over crucial production and distribution processes, and in some extreme circumstances, the urge to reduce costs has caused enterprises to exaggerate how closely they follow best practises. Further effects of this reduction in innovation and quality include the erosion of stakeholder trust and the possibility of creating long-term value (Lim & Phillips, 2008; Maloni & Brown, 2006; cited by Vurro et al., 2009).

Cooperative governance models are essential for fostering social responsibility and sustainable development, according to pragmatic research (Tencati & Zsolnai, 2008, quoted by Vurro et al., 2009). As a result, a thorough analysis of the numerous traits and behaviours that these models account for is necessary.

Depending on the density of the supply chain and the significance of the focal firm, Vurro et al. (2009) claim that there are four distinct types of cooperation in the governance models used in sustainable supply networks. The former describes the degree of interconnectedness among supply chain network nodes. More value chain links improve stakeholder expectations compliance, knowledge sharing, and the interconnection of sustainability standards and practises (Neville & Menguc, 2006; quoted by Vurro et al., 2009). (Roberts, 2003; Vurro et al., 2009; referenced by Roberts).

This is another factor to take into account because the actor's value is inversely correlated with how essential they are to the process (Rowley, 1997; referenced by Vurro et al., 2009). The more significant a corporation is within the chain, the more influence it has over the other chain members (Freeman, 1979; referenced by Vurro et al., 2009). As a result, a more centralised company will have a better understanding of the other players both above and below it in the food chain, giving it more power and influence. Since they compete for

centrality in the supply chain, businesses are encouraged to collaborate and exchange information (Bonacich, 1972; quoted by Vurro et al., 2009).

We find a wide range of possibilities among the four supply chain governance models, ranging from transactional, where the central company has little centrality in a low-density chain and consequently little influence, to participatory, where the central company has a high degree of centrality in a chain with many actors. The four models therefore depend on how closely the supply chain and the core business are related (Vurro et al., 2009).

What is referred to as “governance” is the set of institutional policies and practises that direct, regulate, and control supply chain actors’ behaviour (Li et al., 2014). According to the second model put forth by Li et al. (2014), governance systems have a significant impact on how effectively supply chains aimed at achieving sustainability perform. This model includes seven competitive characteristics, each of which can be seen as a different aspect of sustainable governance. These characteristics are based on the idea of sustainable development. These standards, which have their roots in organisational sociology and economic institutional theory, can be used to assess the effectiveness and legitimacy of governance practises both inside and outside of an organisation (Li et al., 2014).

The internal perspective on governance is based on Barnard’s 1948 idea of organisational equilibrium. According to this theory, an organisation is a system that actively coordinates the talents and efforts of its members and is built on three key tenets: a willingness to cooperate, common objectives, and the open flow of information. All external environmental influences must also be kept in check for an organisation to be in an equilibrium state. Productivity suffers when rewards outweigh sacrifices, but when rewards outweigh sacrifices, the organisation fails (Li et al., 2014).

The factors that affect consumer satisfaction are divided into five categories by Maslow’s (1943) hierarchy of needs: physiological (the customer only needs the product’s general function), safe (the customer is concerned with the product’s physical effects), love (the customer is concerned with whether the product will improve their social image), esteem (the product is considered a symbol of something important to the customer), and self-actualization.

The aim of decision-makers, according to institutional economic theory, is to maximise profits (Meyer & Rowan, 1977; referenced by Li et al., 2014). As a result, governance is employed to address a variety of threats, while efficiency serves as the driving force. Due to bad publicity brought on by the company’s suppliers’ pollution, a company stands the risk of losing clients and revenue. Supply chain density, transaction complexity, central company relevance, and supplier capabilities are some variables that have an impact on governance style. Several forms of governance encourage long-term sustainability through practises like sharing information, distributing risks and rewards, and offering technical assistance (Li et al., 2014).

The third model illustrates how certain environmental and social challenges in sustainability governance may require sustainability management techniques that may not help accomplish commercial goals (Formentini & Taticchi, 2015). The supply chain

management of sustainable commodities and vendor risk and performance management both stand out as original techniques. The deciding reason for the former is concern over brand damage caused by an escalation of sustainability issues. As a result, while evaluating service providers, social and environmental issues are considered in addition to financial ones. Seuring and Müller (2008), who clarify that the latter technique is based on supply chain life cycle criteria for environmental and social performance of products, are cited by Formentini and Taticchi (2015). Economic capital may be used to improve internal operations within the firm and along the supply chain, as well as to create new knowledge and a long-term organisational culture (Dyllick & Hockerts, 2002; referenced by Formentini & Taticchi, 2015).

Effectively implementing a sustainability focus requires the use of sustainable supply chain governance mechanisms, which are the practises, initiatives, and processes used by the focal company to manage relationships with (a) internal company functions and departments and (b) supply chain and stakeholders. Separation of business operations from those of the supply chain is ensured by internal and external control systems. According to the findings, two essential features of governance systems are formalisation and cooperation.

When it comes to implementing sustainability projects, companies may either go it alone, rely on their own market strength, or work with others. Non-collaborative implementation is commonplace in the field of supply chain management. In the context of sustainable supply chain management, there is evidence to suggest that an emphasis on governance is a useful tool for supporting sustainability initiatives. This suggests the need for alternative forms of collaborative governance to counteract the status quo's power-based approach. The formalisation of the decision-making process is the second factor to consider. Formal and informal coordination systems are often distinguished in a typology of governance processes. While informal methods are utilised in stable, mutually beneficial relationships, formal ones are used when chaos and uncertainty are present (Formentini & Taticchi, 2015).

3.1 The components of long-term governance mechanisms

By consulting sustainable governance models, it is possible to find components other than equilibrium that can contribute to the attainment of goals in the environmental, social, and economic dimensions. The first mechanism in Formentini and Taticchi's (2015) paradigm is referred to as non-collaboration. This paradigm emphasises contractual authority, which entails the execution of sales and commercialization contracts that describe business contacts, product kind and qualities, and delivery time and conditions. This system is intended to guarantee accountability and compliance. As a result, the corporation may create precise pricing, quality, and other factors to enable harmony and coherence among the parties. This approach may entail imposing certain parameters based on the strength of the focus firm. The second process, cooperation, focuses on socialisation and includes casual encounters and experience exchange within a polite environment. This technique encourages mutual

compromise and cordiality while sharing information to better cooperation among commercial partners.

Formality is the third mechanism. In this situation, incentive systems are critical in motivating commercial partners to contribute to organisational goals and completely comply with quality, quantity, and delivery time requirements, among other characteristics. As a result, despite the existence of contradictions among the themes, the arrangement of operational procedures facilitates collective functioning. Furthermore, because unfavourable events impact all relationships, disagreements are transformed into chances to overcome difficulties through agreements. Informality is the fourth mechanism. A direct link exists in this scenario.

Identification of the best individual to create corporate ties with commercial partners, as well as the suitable methods of communication and, most significantly, the style of execution, is required. In this environment, trust emerges as a factor in decision making based on the parties' shared desire in long-term relationship maintenance.

Li et al. (2014) identify two processes inside their concept. Effectiveness comes first, and it consists of two parts: economic integration and mutual support. As part of the working partnership, the company of emphasis offers technical assistance to the other party. Compliance with organisational objectives, as well as the transmission of clear, accurate, and real information, is crucial to bringing together the internal and external environments and allowing the construction of a meaningful alliance that benefits both sides. The second factor, solidarity, places an emphasis on one's own interests while still taking into account the convenience of sharing risks and benefits. This might result in the formation of a closer relationship that is maintained outside of the contemplative posture of uncertainty.

Institutional theory and organisational sociology form the basis for the legitimacy mechanism. The objective of this mechanism is to make sure the institutional setting is taken into account while designing a company's structure (Meyer & Rowan, 1977; referenced by Li et al., 2014). Consumer pressure, government oversight, and NGO advocacy all come together in this process. As a result, sustainable choices need thinking about things like law, legal control, knowledge dissemination, and responsible consumption.

All three models (Formentini & Taticchi, 2015; Li et al., 2014; Vurro et al., 2009) agree on the importance of cooperation between the central business and its internal and external stakeholders (shareholders, employees, clients, creditors, and suppliers) in order to achieve economic, social, and environmental goals (government authorities, regulatory agencies, and other stakeholders). In addition, in order to ensure a long-term agreeable connection, all models take into account the achievement of agreements and the sharing of risks and benefits.

Cooperation between the core company and its internal and external stakeholders (shareholders, workers, customers, creditors, and suppliers) is crucial for achieving economic, social, and environmental goals (Formentini & Taticchi, 2015; Li et al., 2014; Vurro et al., 2009). (government authorities, regulatory agencies, and other stakeholders). Furthermore, all

models allow for the attainment of agreements and the sharing of risks and advantages to ensure a long-term pleasant connection.

3.2 Study restrictions

This study mainly looks at empirical research done in Asia, North America, and Europe on the topic of sustainability and corporate governance. So, they need to be wary of the results they create and take into account the context in which they function, which includes factors like local law, culture, the government's role, and the engagement of stakeholders. It will be challenging to create a model of sustainability and corporate governance because every organisation operates in its own unique environment.

4.0 Conclusions

This article discusses sustainability and its relevance to corporate governance. Although these are new topics in the literature, we believe they can help to address the challenges that plague the world and its people by balancing the social, economic, and environmental elements. As a result, the advantages of sustainability and corporate governance are discovered, such as greater business value, more sales, and a better company image. However, issues persist; for example, the theoretical inadequacy of both notions obscures their relationship. Finally, there are prospects for new scientific investigations, such as empirical studies of newly developed governance models, which may serve as a foundation for the creation and consolidation of other models to attain sustainability.

Universities have enormous potential in terms of developing new information and training in sustainability and corporate governance concerns. Because prioritising economic performance in a pragmatic and reductionist attitude constitutes a danger to human happiness and dignity, in addition to violating and enhancing biodiversity protection and enhancement, this symbolises the social and environmental elements. This necessitates a systems approach that recognises organisations as complex entities that must be handled via multidisciplinary research. Similarly, corporate governance varies across the globe, but one thing that has been noted is that transparency in the company's activities and the inclusion of stakeholders in decision-making are critical to achieving better results in the three dimensions of sustainability. It is also critical for the government to be involved in regulation and oversight, as well as for colleges to provide knowledge and develop people devoted to both concerns, among other things.

Collaboration is the key to successful corporate governance, according to a review of the literature on the various forms of corporate governance and taking into account the density of the market structure and the importance of focal enterprises. Collaboration should be employed not just to comply with numerous rules of behaviour (such as those established by the OECD and current local, national, and international regulations), but also to promote openness and a free market system. Organisations now have a historic chance to create new

structures and corporate governance procedures that may serve as a strategic foundation for carrying out operations that fully complement the three aspects indicated above.

The study was documentary in nature, allowing for an examination of the aforementioned difficulties. Although the breadth of the findings is restricted, this study might serve as a springboard for future research in this area, such as the creation of a quantitative tool based on the models and its application to detect the link between sustainability and corporate governance. This research could lead to the development of good public policy and private sector practises that strengthen laws and regulations (in the case of public policy) or certifications and standards (in the case of the private sector) that promote the harmonious achievement of both organisational and sustainability goals. Finally, business image, revenue, and value are meaningless when the globe suffers as a result of particular corporations' recklessness. As a result, a new corporate perspective that emphasises economic, social, and environmental advantages is required. Future generations will bear testimony to this requirement.

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Post COVID-19 – Review of Human Resource Management Practices

Chandrakant Varma* and Yesha Mehta**

ABSTRACT

Since the beginning of the epidemic, human resource management has faced a number of obstacles and roadblocks. In the wake of a pandemic, human resource management may have to deal with fresh problems and altered work patterns. The study offers knowledge on organizational responses to the epidemic and its impact on worker sensitivity. It also outlines the organization's problems and the steps needed to solve the pandemic-related problems. The report outlines the difficulties and a solution to employee-related problems caused by the epidemic. The organization's capacity to adapt and develop personnel management techniques will determine its potential to endure and prosper. It goes beyond simply digitalizing operations or using new technology. The firms are attempting to implement new working practices and trial various tactics because there is no set framework to cope with the current scenario. The report makes an effort to analyze organization and employee concerns over the COVID-19 Pandemic and offers workable solutions to the difficult issue.

Keywords: *Human resource management; Organizational practices; Work from home; Hybrid workplace; Covid-19.*

1.0 Introduction

Unquestionably upsetting the globe, COVID-19 presents problems to nations by endangering the health system, economy, and politics. The world health organization has consistently guided the effects of this epidemic, stating that it will last longer than anticipated. Every aspect of life has been affected by the pandemic phenomena internationally. Organizations are confronted with the challenge of accepting the new normal and lessening the effect in this unique scenario, which comes with no experience, a depleting bottom line owing to a decline in sales, and uncertainty. The business environment could not remain untouched, as everyone worried about life has to think of lively hood. The stages of lockdowns imposed on businesses in the service sector and severely hurting the manufacturing sector have been experienced by the whole world. Since uncertainty is a risk that all businesses must manage, organizations must develop information sources, integrate processes, and implement them with flexibility.

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Since survival is more important than competition, a proactive approach is required. Organizations can replicate ideal organizations and work together to control, avoid, or reduce uncertainty (Simangunsong, Hendry, & Stevenson, 2012).

There is a serious influence on employees' mental health, which makes it difficult for firms to manage the goal-achieving use of this fidgety resource. Since the pandemic's exponential ascent, the level of uncertainty has increased, affecting daily operations inside the business, and reducing employees' ability to travel from their homes to their places of employment. The industries affected by the pandemic, as per a report by McKinsey, analyzed the sectorial impact of Covid – 19 shows the highest affected sectors are Hospitality, Entertainment/Arts/Recreation, Wholesale Trade, Transport & Warehousing, and the least affected are Financial & Insurance, Professional Services, Real Estate/Rental/ Leasing and Management Companies. The very nature of business proceedings has taken aback by the shock; organizations will have to rethink their strategy and day-to-day conducting of businesses. The steps taken by the organization in these trying and testing times will characterize the organization's future. Organizations will have to safeguard the business priorities and, at the same time, develop strategies to recover back.

Workplace Today's workplaces have found it difficult to form relationships and communicate, especially when dealing with a wide age range (Kamboj and Garg, 2023). Because a person is simultaneously an employee, a family member, and a parent when they work from home, it puts much emotional strain on them. Organizations will need to understand this (Sanders, 2020). Because it is challenging for firms to forecast how long the current epidemic will last, it is crucial to be ready in every aspect of the business.

An comprehensive review of the literature reveals major areas where organizations have failed in the present work-from-home (WFH) scenario, as not all employees were able to handle the work-life conflict, shifting expectations, and new technologies associated with WFH to perform without reporting wellbeing difficulties. Organizations that are accustomed to face-to-face communication and require a physical presence are in a unique position. A thorough examination of the issue reveals the need for a new standard for work-from-home policy that incorporates virtualization, functional integration, decentralization, and employee development. Corporate HR will need to develop effective and efficient methods to combat the epidemic (Arora and Suri, 2020).

If COVID is no longer required, organizations will require more time to adjust and expand (PWC, 2021). Working from home or in an office will become the norm in the future. The Coronavirus outbreak has had an effect on HR policies and processes. Changes that are poorly managed may reduce productivity. As an HR manager, you should be prepared for anything that comes your way. Following the COVID-19 epidemic, organizational practices and methods will be heavily influenced by how people live their lives, how work is organized, and how technology is utilized.

Due to the COVID-19 pandemic's abrupt onset and quick response, research on post-pandemic remote working has increased considerably, yet; the literature remains fragmented (Ranjbari et al., 2021). While trust was mentioned in many research studies, it was rarely

measured and examined. According to a study that examined employee trust during the pandemic, managers' and employees' mutual trust is positively related to better WFH outcomes (Vyas & Butakhieo, 2021).

Human resource managers have a critical role in enabling employees in navigating the obstacles brought on by unexpected events in the workplace and community (Biekowska et al., 2022). Autonomy, control, and flexibility are important components in a safe workplace that can improve or degrade workplace well-being (Guest, 2017). While certain job tasks will soon become obsolete, there would be a greater need for new ones. In this situation, human resource managers must decide how to leverage present abilities in a variety of beneficial ways to fill those advanced responsibilities (Gaikwad, 2020).

To maintain worker capacity after the COVID-19, regular warnings, conferences, and coaching sessions should be held in addition to stronger worker commitment action. Organizations must implement their ideas, assess them, and develop the adaptability to alter their strategies as needed. The company will become stronger and more prepared for the future due to the maturity gained. This is possible if businesses learn to accept and adapt to the situation. Organizations will need to grow and learn from their errors.

Thanks to all their lessons, they can plan and execute more effectively in the future and create lasting advantages. Organizations must thoroughly analyze their change initiatives and take them into account, it is emphasized. Organizations may locate and use the best change management techniques by classifying these projects. The purpose of this article is to explore the most critical issues that HRM faced during the pandemic, to look for patterns, and to propose viable solutions and actions for HRM in the post-pandemic period. HRM should investigate strategic human resource management, employee retention tactics, and remote work, taking in mind that the COVID-19 outbreak has transformed how organizations structure their work.

As the number of employees working remotely grows, the study investigates the HRM difficulties associated with building flexible work organizations, alternative work arrangements, and hybrid models of working. Our study undertakes a broad literature search in human resource management to understand the main concerns and probable outcomes related to the pandemic. They must be able to develop an action plan tailored to the requirements of their organizations and individuals in the potential field of human resource management using the concepts discussed in this article.

1.1 Objectives of this study

The research paper aims to investigate and comprehend how the pandemic affects organizations and provide a model for them to use to meet the problems they confront. The following are the goals:

- Examine the HRM challenges caused by the COVID-19 pandemic.
- To propose effective solutions to the COVID-19 Pandemic's challenges.

2.0 Literature Review

The Coronavirus pandemic has impacted everyone, society and industry. Recession is affecting the economies, which may not be simple (WHO, APRIL 2020). WHO recommended actions for companies to adopt to lessen the effects and stressed the significance of preventative steps to safeguard enterprises and employees worldwide. According to the suggestions, fewer people should work in offices and more people should use a work-from-home strategy (WHO, March 2020). COVID-19 has had an impact and will continue to have an influence on enterprises and the labor market in terms of job quality (ILO March 2020). The novel coronavirus-caused global pandemic has changed how we think about work and daily life. Significant modifications to work terms and circumstances have increased voluntary and forced employee turnover. The major resignation incident is rapidly approaching and is quite real. In today's corporate climate, all employees may be obliged to work from home unexpectedly due to a lockdown. According to study issued in April 2020 by Bain and Company, the safety and security of employees and customers, as well as resolving emotional concerns, are organizational objectives.

According to the US Department of Labor, 11.5 million workers will change occupations between April and June 2021. According to Kajarekar (2021), attrition in this business will reach an all-time high of roughly 23%, necessitating a 52% increase in employment for the IT and ITES industries (Kothari, 2022). It goes on to state that companies should examine and assess the effectiveness of their employee compensation, work-from-home, and successful engagement policies, and practices. According to a June 2020 analysis by Bain & Company, most businesses have adopted partial or full work-from-home policies and practices. According to OECD data, out of 20 million workers from 38 countries who returned to their occupations, 70% were looking for new jobs or jobless (Taylor, 2021). Considering this, research by Kane (2021) concluded that the resignation phenomena are on the rise and are likely to last. Staff must feel safe in order to deal with difficult situations. It was also emphasized that open lines of communication between employers and employees are critical (Weingarten et al., 2020). Employee turnover is at an all-time high (Cohen & Roeske-Zummer, 2021). These difficulties enable an organization to be extremely flexible and, as a result, adaptable to successfully organize, manage, or govern its workforce by posing significant risks to its viability (Atkeson, 2020).

A million or more ITES and IT workers in India may lose their employment as a result of the pandemic, according to estimates. According to the literature analysis, it is evident that organizations have difficulty changing work habits and lowering employee turnover. It must choose whether to adopt the hybrid strategy or keep working from home. According to Khudhair et al. (2020), even amid new forms of organizational management, such as working remotely, some organizations are still unfamiliar with the best approaches for making working remotely more efficient in terms of boosting employee productivity. Leaders can also help reduce social isolation by enabling and encouraging their employees to take use of communication and information sharing opportunities (Contreras et al., 2020).

Organizations must provide the necessary infrastructure to support work-from-home practises. Tools, online resources, and necessary hardware may be included. They should concentrate on creating a framework for collaboration that encourages communication and debate (Meenakshi & Neha, 2020). Many firms, including those in the hotel, transportation, retail, and other industries, would suffer, according to a recent Patel research (2022). According to Baldwin and Weder (2020), most managers are working hard to help their staff adapt to, and thereby cope with, significant changes in the workplace and social environment. Human resource management (HRM) and leadership can assist businesses in supporting employee well-being. In fact, it is well known that different HRM procedures and management approaches have an impact on workers' general well-being and their ability to telework (see, for example, Guest, 2017). Because HRM performs a wide range of human relations and work management tasks in tandem with organizational strategy decisions, it plays a significant role during times of crisis and ambiguity (Gulua, 2020).

Human resource management (HRM), according to Armstrong and Taylor (2020), "is how people are employed, managed, and developed in organizations." COVID-19 has had a tremendous impact on it, providing significant challenges for managers and human resource experts. This section discusses the impacts and difficulties related to strategic HRM, working conditions, and HRM functions, notably staffing, performance management, training, and development, pay management, safety and health management, and employee relations. Employers rarely choose to lay off employees, but in an emergency, situation like as COVID-19, it may be unavoidable. The main challenge for HRM practitioners in this situation is guiding managers and employees through this process and providing suitable information. Given the current state of ambiguity, it may not be simple. HR experts were unprepared for such a dramatic shift. Furthermore, the use of virtual selection procedures may damage candidates' and employers' ability to assess a person's fit with their work environment, reducing worker productivity and retention (Carnevale & Hatak, 2020). However, it is critical to note that organizations all over the world are still feeling the effects of this pandemic, which does not look to be going away anytime soon. Increasing organizational resilience is unquestionably vital. In this case, organizations must be able to develop creative solutions to effectively absorb and handle the disturbance that threatens their survival (Ngoc Su et al., 2021).

(Ulrich 2020) emphasized the significance of thinking about the following step in dealing with the epidemic. In the future, following the disruptions brought on by the Covid-19 epidemic, it will be crucial to examine how human resource management (HRM) practices may affect organizational competitiveness. Additionally, according to Toscano and Zappalà (2020), the COVID-19 pandemic may make social isolation worse. Because of the Covid-19 issue, the use of remote working, e-working, and other work management technologies increased during the Covid-19 pandemic (Dlamini & Ndzinisa, 2020). However, over time, HRM procedures like hiring, training, and long-term career planning may prove to be essential tools for creating a workforce that is flexible and resistant to the problems associated

with teleworking (Caligiuri *et al.*, 2020). The current work responds to the problems identified by a literature review.

3.0 Research Methodology

3.1 Research design

The study is exploratory and descriptive in nature. A self-administered questionnaire is used to gain a better understanding of the organization's problems. Cronbach's alpha is used to assess the reliability of the received data. Cronbach's alpha coefficient has a range of 0 to 1. A number closer to one is supposed to predict internal consistency. The data set shows good internal consistency, according to the data collected and the reliability test, with a Cronbach's alpha of 0.89.

4.0 Data Analysis

The people working in the IT and ITES industries in the Mumbai region are the ones who provide the data. We got 110 responses in total. The information gathered is provided in three parts: the first part describes the issues corporate HR faces; the second part outlines workplace practices that can be adopted or preferred; and the third part outlines measures recommended for designing future workplace practices. The compiled replies are listed below. The distribution of the responses gathered to examine the organizational problems encountered is displayed in the table below. It has been noted that every respondent openly acknowledges that the organization's biggest difficulty is maintaining employee wellness. 77% of respondents said they were willing to handle operational challenges, 18% said they were not, and 5% were neutral. 85% of workers believe measuring productivity and monitoring performance is difficult. Similarly, 61% and 91% of respondents believe allocating resources wisely is a major difficulty.

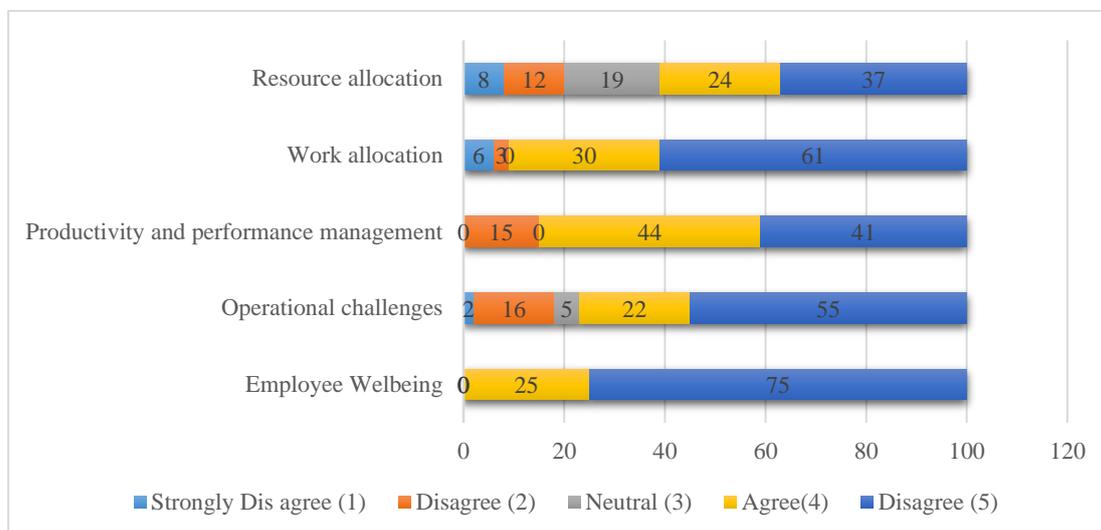
Table 1: Challenges Faced by the Organization

Particulars	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
Employee Wellbeing	0	0	0	25	75
Operational challenges	2	16	5	22	55
Productivity and performance management	0	15	0	44	41
Work allocation	6	3	0	30	61
Resource allocation	8	12	19	24	37

Source: Primary data

The below chart presents the respondents' view of challenges faced in their organization.

Figure 1: Challenges Faced by the Organization



Source: Based on authors' study

Employee perspectives on working from home and working in the office are explored in further research. Responses that were given from this perspective are shown in the table below. It has been shown that 86% of employees support working remotely, and 81% are open to adapting to the firm's hybrid model of workplace practice. They consent to either a hybrid workplace or a WFH of WFO. The study shows that employees prefer to work from home and agree to work from the office or hybrid model.

Table 2: Workplace Practice

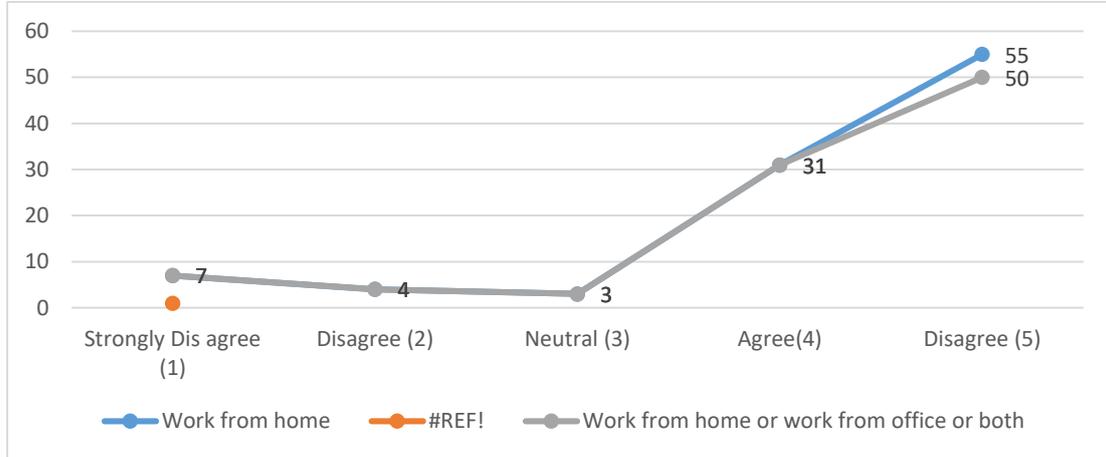
Particulars	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
Work from home	7	4	3	31	55
Hybrid workplace practice	7	4	3	31	50

Source: Based on authors' study

The below chart presents the respondents' view of Work from home or hybrid model.

The distribution of the responses gathered to research the actions organizations may take to enhance the existing situation is displayed in the table below. According to 78% of workers, employee engagement and satisfaction need attention, while 79% believe workers need organizational assistance to resolve current issues. Notably, 90% of employees believed there was a need for review and change in organizational policies and practices for employee management.

Figure 2: Workplace Practice



Source: Based on authors' study

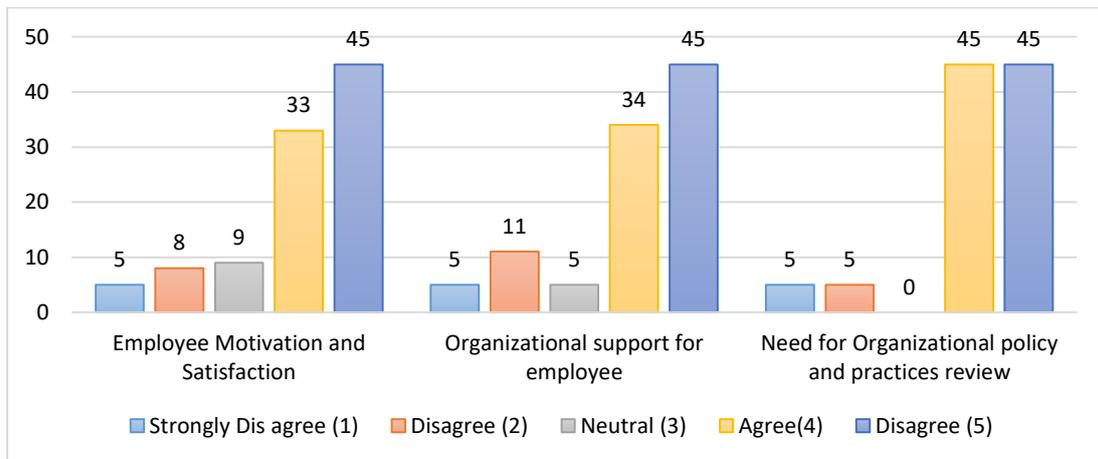
Table 3: Employee Response Suggested Measures

Particulars	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
Employee Motivation and Satisfaction	5	8	9	33	45
Organizational support for employee	5	11	5	34	45
Need for Organizational policy and practices review	5	5	0	45	45

Source: Based on authors' study

The chart below presents the respondents' suggestions to overcome the organization's challenges in the current environment.

Figure 3: Employee Response Suggested Measures



Source: Based on authors' study

5.0 Challenges Faced by the Organization

Companies around the world are grappling with questions of sustenance and survival in these tough times. The information acquired helps us to understand the various aspects of the problems that must be tackled. Achieving objectives while keeping employee safety and security in mind; redefining employee-related policies; planning for uncertainties; developing a virtual communication network; developing flexible work arrangements or work from home; achieving objectives; and developing cost-cutting measures other than using organizational capability, i.e., employees. The issues that must be addressed are simply a small portion of the already discussed concerns. The difficulties created by the epidemic could not be readily solved; organizations would need to revise their short- and long-term plans. Suggestions on overcoming obstacles

- The main focus of the stage is on comprehending the phenomena and their effects on the industry. The problems will need to be understood by the organization.
- Rethink your strategy and create a new model with new priorities, as well as a structure for the resurrection process. Recognize what is essential for survival and sustainability. The available and required resources, their application, and the results should be highlighted.
- The organization's leadership must create plans while considering external influences and internal perception at all levels. It is crucial to realize that for the strategy to be carried out accurately and provide the desired results, the business must adopt it.
- Organizations must develop realistic goals and a well-thought-out plan to attain their aims. The same sense of purpose and passion for addressing the welfare of human resources must be articulated. The highest level of commitment will ensure a similar level of reciprocation. The workforce will profit both in the short and long term from this by learning to adapt and adjust to the new environment. To reconfigure and redesign the organizational model for fostering both individual and organizational excellence, people involvement and interventions are required (Logasakthi et al., 2022)
- The organization is profoundly conscious of its potential and current capacities. An organization's primary focus must be on the resources required to survive. Comprehending the resources needed to develop and implement plans accurately is crucial.
- Create focused efforts for the greatest resource utilization to secure your business: The study's emphasis on human resources will require the organization to revamp its personnel planning, role description, and goal-setting processes. Any uncertainty or ambiguous behavior at this moment will steer the organization on the wrong path.
- It is common knowledge that things will change in the future. There have been unknowns everywhere. The company must prepare to endure the present phenomena and thrive in the new environment. Since there will always be unforeseen circumstances in business, a plan can never be guaranteed to work. Organizations must implement their plans, evaluate them, and cultivate the flexibility to change their tactics as necessary. The maturity

attained will make the company stronger and more equipped for the future. This is feasible if companies learn to adapt to and accept the circumstances.

- The organizations will have to learn from their mistakes and develop. They will be able to plan and execute better in the future and develop persistent advantages thanks to all the lessons they have learned. It is emphasized that organizations must properly analyze their change initiatives in addition to considering them. Organizations may find and implement the best change methods by categorizing these initiatives. (Samal and Chatterjee, 2020).

6.0 Conclusion

This article aims to look at the most current modifications to human resource management methods and practices during the Covid-19 outbreak and identify new difficulties and top concerns addressed by HR specialists and workers. The pandemic has changed how the world works; businesses and nations feel its effects. Organizations must take proactive measures to deal with this phenomenon's uncertainties, develop crisis management methods to deal with the strategically important concerns relating to immediate organizational performance and modify their working practices. Help and encouragement are urgently needed to help employees who are afraid and upset (Carnevale & Hatak, 2020).

COVID-19 has undoubtedly presented HR practitioners with greater hurdles than anticipated. Employees are dealing with difficult situations, the economy is suffering from uncertainty, and HR professionals are doing their best to preserve perspective and coordination. Is it really as simple as it appears? Because of the abrupt transformation in workplace culture, HR is confronting new issues. Future studies should examine workers' attitudes towards using telework during or after the outbreak and assess the current condition of teleworking in firms. Future research will conduct a longitudinal investigation to learn more about these potentials and restrictions. It will also assist legislators in modifying current legislation to satisfy the demands of the altering corporate environment and prosper in a cutthroat market. Additionally, the study contributes to the body of literature by recognizing the new HR challenges in the post-pandemic new normal. Although these statistics indicate some of the challenges in HR, further investigation may potentially reveal additional grave issues.

Employees were concerned about their mental health as a result of the unpredictability and the rising unemployment rate, especially those who were unable to work because of the Coronavirus outbreak and displayed the most severe health issues. As a result, by simplifying HR procedures and enhancing flexibility, the employee retention strategy should be tailored to workers' primary concerns and the fresh challenges posed by the Coronavirus while taking into account employees' psychological contracts. An organization must establish simple reporting methods, demonstrate a clear commitment to employee health and safety, and keep track of the number of workers present at the workplace in order to ensure employee security and safety (Service Now, 2020). According to the study's findings, HR managers made steps to assist accompanied employees by arranging flexible working

hours. Many employees worked from home, necessitating regular communication from management and less stringent performance management standards. Furthermore, HRM assisted the workers in updating their skills required for remote working. The organization's capacity to adopt policies and procedures that affect business quickly and effectively while meeting medium- and long-term demands is crucial for the organization's survival (World economic forum, March 2020). The organizations must concentrate on creating secure standards and the infrastructure required for providing care during a pandemic. In order to reduce the risk of viral transmission, they must keep promoting workplace flexibility (United Nations, June 2020). According to Kniffin et al. (2020), a much better understanding of the pandemic's effects should be viewed as a window to analyze and identify the crucial issues that need to be addressed.

Human resource departments aim to resolve conflicts between employers and employees, so they must carry out their duties without leaning toward the employee or the company. However, rather, they must safeguard the well-being of both parties to the contract. Learning, creative thinking, and adaptation would be required to overcome the situations. Because the impacts of COVID-19 are long-lasting, it is necessary to change present human resource practices to ensure a fair distribution of responsibility between the organization and the individual. To appropriately adapt to the volatile business climate, the empirical study must focus on the impact of COVID-19 on major HR policies, processes, and actions across industries.

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The Effect of Stress of Occupation and Intelligence of Emotion on Work Life Balance in Private and Public Banking Sector

Puja Dutta and Shelly De (Pandit)***

ABSTRACT

This study is to examine the relationship between Stress of Occupation, Intelligence of Emotion with Employee's performance and Satisfaction of job in private and public banking sector. This paper presents a survey related study of 250 employee of private and public banking sector, which was selected randomly for this study. The study shows that positive association between Intelligence of Emotion and Employee contribution and Satisfaction of job of both Public and Private Banking Sector. This study also found Intelligence of Emotion is a moderating variable that reduce the Stress of Occupation and improve mental health condition of the employee-on-Employee contribution. These results showed that the higher EI and Stress of employees is associated with the higher Employee contribution in private and public banking sector.

Keywords: *Stress of occupation; Intelligence of emotion; Employee contribution; Job satisfaction; Private and public banking sector.*

1.0 Introduction

Stress is terms of the psychological and physiological effects on an individual and can be a mental, physical, or emotional burden. Physiological stress is commonly perceived as a physiological response of the body like headache, migraine, chest pain, fatigue, heart palpitation, sleep disturbance and muscle pain to various stressors in the workplace that directly and negatively affect the productivity, quality of work and personal health of an individual (George, Jones, 1996, Newell, 2002, World Health Organization, 2005). Whereas Psychological stress is an emotional response like anxiety and depression, tension, anger, nervousness, irritability, and frustration that an individual experiences because of stimulating outcome in the workplace (Luthans, 1992, Millward, 2005, World Health Organization, 2005). It can increase employee's ability to cope with their stresses. Stress of Occupation occurs when the knowledge, skills, abilities and attitudes of employees are not up to or do not adapt to their requirements and workloads in organizations.

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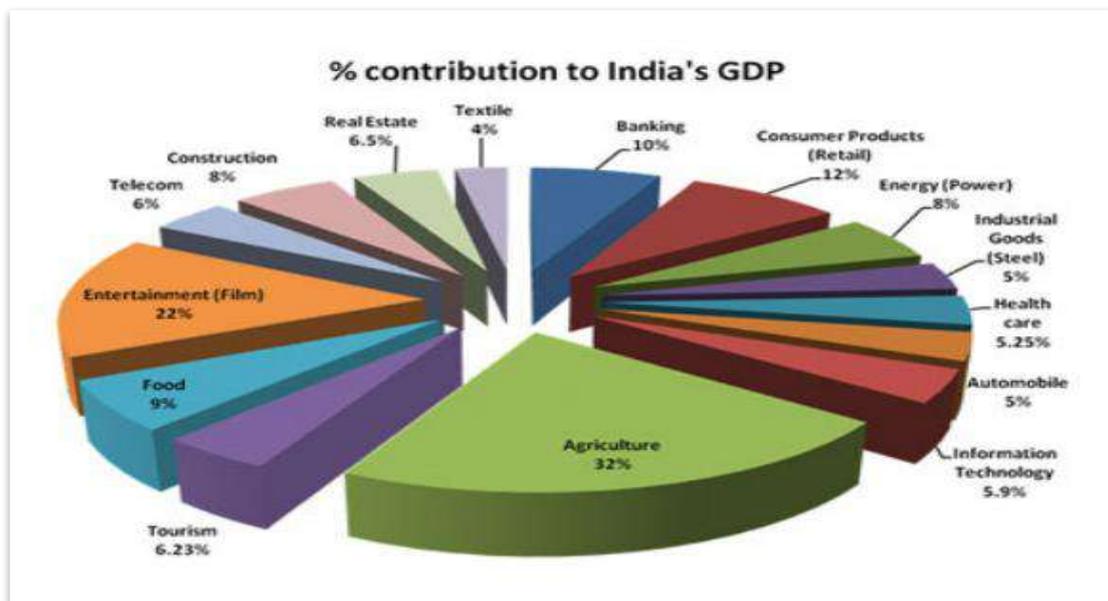
As a result, it can reduce employees' ability to control and cope with physiological and psychological stress, (Basowitz *et al.*, 1995, Cartwright, Cooper, 1997).

Intelligence of Emotion has contributed to job performance by enabling people to control their emotions and cope with stress, and to continue to perform well even under pressure by adapting to organizational modification (Lopes, Grewal, Kadis, Gall & Salovey, 2006). EI helps employees to use their emotions sensibly, especially when selecting an applicable conflict management style and improving job performance. The overall performance of the Employees can be measured by the following parameters such as execution, accuracy, creativity, and several other levels. It relates to the effectiveness, efficiency, quality and performance of their production. The Performance also helps us to evaluate the value addition made by the employees to the organization. A benchmark performance makes the employee happy, glad, and satisfied.

1.1 The importance of Indian banking sector

Banking sector is the backbone of the world's economy. Any nation's economic development and growth are greatly influenced by its banking industry. It contributes 10% of India's GDP.

Figure 1: Contribution to India's GDP



Source: www.indiabudget.nic.in

The contemporary economy cannot work without the banking industry. As the main source of credit, it offers funding for individuals as well as for companies to acquire equipment and pay their employees. By providing health insurance at local branches, banks

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serve as a bridge between homes and companies that supply health insurance in distant cities. Third, the bank offers financing to healthcare professionals, enabling them to increase the availability of healthcare.

1.2 Objectives

The objectives of this study are:

- To assess the level of Stress of Occupation and Intelligence of Emotion among the employees who are working in Public and Private Banking Sector.
- To find out the relationship between the level of Stress of Occupation and Intelligence of Emotion with Employee contribution and Satisfaction of job among the employees who are working in Public and Private Banking Sector.
- To find out the role of Intelligence of Emotion within the relationship between the level of Stress of Occupation with Employee contribution and Satisfaction of job among the employees who are working in Public and Private Banking Sector.
- To investigate the effects of employees' Intelligence of Emotion on the level of Stress of Occupation, Employee contribution, and Satisfaction of job among the employees who are working in Public and Private Banking Sector.

2.0 Review of Literature

The review of literature considering the analyses of the research studies that have been done earlier in this field are presented below:

The Comparative study of Bushara Bano and Rajiv Kumar Jha (2012) on "Organizational Role Stress Among Employees in the Public and Private Sector based on ten role stressors" considering the total sample of 302 employees for this study, showed that both govt. and non-govt. sector employees in Uttar Pradesh are exposed moderate levels of stress.

Panagiotis, T., Panagiotis, R., & Platis (2013) reviewed their study on "The effect of job-related stress on employees' satisfaction in Health Care" considering 271 nurses operating in Greek hospitals. This research showed that heavy workload and lack of rule at the work are negatively related to all dimensions of Satisfaction of job and feedback is absolutely related to employees' satisfaction with rewards and job security.

Alam, Saeed, and Rehman (2015) conducted a study on "The impact of Work stress on employee's performance". 200 employees including managers and non-managers were selected basis on their experience (at least five years) on permanent service from completely different banks within the province of Khyber Pakhtunkhwa, Pakistan. This study reveals that motivation plays a moderating role in the relationship between stress at work and Employee contribution in the banking sector in Pakistan, as it faces heavy workload, work disputes, and the environment of physical work.

Kakkos and Trivellas (2011) conducted a study on "Employee contribution is related with job Motivation and work Stress". This study reveals that the high job motivation is not

related to existence needs (pay, fringe benefits), and relatedness needs (superiors, peers) of the high job performance. In addition, the high motivation concerning growing demands for higher work performance and therefore the higher level of work-stress experienced by the employees is related with the lower job performance.

Labhane, Nikam, and Baviskar (2016) conducted a study on “Mental health about to with concerning Satisfaction of job of bank employees in the city of Jalgaon” (Maharashtra, India) considering the sample of 120 employees (male-female ratio, 1:1) and revealed the existence of a male-female difference in the mental health of bank employees, wherein the female employees excel male employees in their mental health ($t = 2.61$; $p < 0.05$). The study further exposed that the bank sector significantly affects mental health, wherein employees from the government sector surpass their counterparts from the private sector in their mental health.

In the comparative study of True Careers, Nancy R. Lockwood (2003) indicated that 70% of more than 1,500 respondents said that they are not to undergo a healthy balance between their personal and professional lives. From another study conducted in 2001 by the Work Institute of America, researcher Nancy R. Lockwood states that the solutions for employees help to reduce overtime of work, stress, workloads, enhancing flexibility, quality time for family & leisure time.

P. Chand and A.S. Sethi (1997) conducted a study on 150 junior officers working in different banking institutions in Himachal Pradesh. They have narrated that a large amount of dearest and most significant predictor which causes strain in the job-related area are role conflict strains working conditions and role overload. Chabungban (2005) conducted a study on “A bridge can be built between stress and better performance by developing Intelligence of emotion”. Unattended effects of stress resulted costly to both the organization and the employee within a given time frame. Intelligence of Emotion can control impulses & helps to face the frustration and obstacles boldly to empathize and get along well with others.

Sigroha (2014) studied Delhi & Near Capital Region among women employees of Manufacturing, Service & I.T. employees. Analysis revealed that childcare facility seems to be more important for improving the performance related to the work of IT sector employees, which helps to reduce their strain and tension than employees with service sector employees. Help desk for the routine task is perceived to be more effective in reducing their stress in comparison with manufacturing sector employees. Flexible working arrangement amenities are deduced to be more effective to improve the health of women employees in IT and service Sector employees compared to Manufacturing Sector employees.

M. Kumaraswamy and Ashwini S. (2015) conducted a study on “Married ladies working in some Indian Banks in Karnataka”. The analysis states that the pressure of work or pressure of personal life work can lead to stress and this case ultimately affects the person’s health both physiologically and psychologically. Shah, V., and P. (2016) investigated “The impacts in case of balancing WLB”. In their study, it turned into discovered that excessive strain is observed among the women whereas balancing work life and family life. They have the feeling that there is a shortage of time & this causes stress.

K. Indra (2014) conducted a study on “Social support is required for child care, elder parents/parents in lawn care and other dependents also”. It is mentioned in the study that both organizational support and family-related support are required for a healthy work-life balance. It is concluded that work is important in one’s life to lead a happy and satisfactory. At this old age, parents have trouble dealing with the children. Barik (2017) conducted a study on 45% of teachers in Primary Education in India who are female are facing high work stress and juggling work-life imbalance (UNESCO, Institution for Statistics, 2013). His study comprises the data which are collected from Raipur’s private and government schools, which are made up of married feminine teachers.

Nielsen et al. (2015) conducted a study on “Mental and physical health problems appear to resemblance with Post Traumatic Stress Disorder” (PTSD). Their study found that 26 studies had mentioned the link between bullying and PTSD. Eighteen studies have begun that there are zero order correlations between bullying and PTSD symptoms. They mentioned that another study found that memories of childhood bullying were linked to PTSD symptoms in adulthood.

Nadinloyi, K. B. et al. (2013) examined a study on the topic of “Relationship between Satisfaction of job and mental health of employees” taking into account a total sample of 90 employees from two industrial companies of Ardabil. The data is analyzed using several regressions and a test. Research has shown that positive association between employee dissatisfaction in the workplace and mental health, social action and depression. Working women have been found to be more satisfied with their jobs than working men. Additionally, employees who have extensive work experience in their job have a high level of job satisfaction.

Shamsuddin, N., and Rahman, R. A. (2014) examined a study on “The relationship between Intelligence of Emotion and job performance of call center agents” based in Kuala Lumpur, which has selected of this study, in which 118 respondents participated. The study showed that significant relationship between Intelligence of Emotion and work performance. Analysis of the moderating variables showed that gender had no influence on the relationship between the independent variable (EI) and the dependent variable (work performance).

Hanafi et al. (2017) examined a study on “Measuring the impact of Intelligence of Emotion on teacher job performance” in Kedah. This study shows that a significant relationship between Intelligence of Emotion and job performance, and all Intelligence of Emotion variables can affect the teacher’s job performance. Teachers with high Intelligence of Emotion are more likely to be successful in their work. Skills shows that significant relationship between job performance, so the results will be useful for the Malaysian Ministry of Education to understand the importance of Intelligence of Emotion in improving student job performance.

Tagoe, T., and Quarshie (2016) reviewed a study on “The relationship between Intelligence of Emotion and Satisfaction of job among Nurses in Accra” using the entire sample of 120 registered general nurses (83 women and 37 men) from three Accra public

hospitals. The results showed a major correlational statistic between Intelligence of Emotion and Satisfaction of job among nurses. However, the results showed no significant gender differences in terms of Intelligence of Emotion and job satisfaction.

Alnidawy, A. A. B. (2015) conducted a study on “The impact of Intelligence of Emotion on Job Satisfaction in the Jordanian Telecommunication Sector” considering that the sample of 300 employees for this study showed that Intelligence of Emotion had a significant impact on Satisfaction of job in an organization. This study also recommended some conclusions and recommendations that achieve the objective of this study.

Danquah, E. (2014) analyses a study on “The influence of Intelligence of Emotion on organizational growth in the banking sector.” The study is based on 20 banks in Ghana and also the results of this study show that Intelligence of Emotion is absolutely related with organizational performance, while it has a moderating effect on the relationship between customer satisfaction and business performance. Banks are suggested to formalize and regulate their investments within the acquisition of Intelligence of Emotion skills for maximum organizational performance.

Ghoreishi, F. S. *et al.*, (2011) conducted a study on “Assessment of Intelligence of Emotion and Satisfaction of job among workers of Kashan Hospitals” by considering 121 employees of Kashan hospitals for this study found that the bulk of employees (76%) had moderate Intelligence of Emotion and 88.2% of the staff had moderate job satisfaction. There are no important relationships between Intelligence of Emotion and variables similar to gender, education, and marital status and job status however significant relationships have been found between age and Intelligence of Emotion. Furthermore, there has no significant relationship between Satisfaction of job and demographic variables.

In addition, there’s no important relationship has been found between Intelligence of Emotion and Satisfaction of job ($P > 0.05$). Because the majority of the employees had a median level of Satisfaction of job and Intelligence of Emotion and others had a less than average level, it appears necessary for authorities to explore the explanations for job dissatisfaction, such as burnout, depression and the development of a feeling of helplessness among staff. Educational workshops are also recommended for employees, especially those under 40, in order to promote their Intelligence of emotion.

Shukla, S., Adhikari, B., & Ray, M. (2016) examined a study on “The relationship between Intelligence of Emotion and job satisfaction” on the sample of 120 employees of a service offered by an Indian multinational organization in the national capital region of India. Out of the four dimensions (self-control, well-being, sociability, emotionality) of Intelligence of emotion, only self-control is considerably related with job satisfaction. This study shows that employees with a higher Intelligence of Emotion are more satisfied when organizing their work. This may be because an emotionally intelligent employee has his emotions under control, will face in a positive way all kinds of people and situations, perform better, are going to be additional glad along with his job. The results of the multivariate analysis shows that 11.6% of the variation within the employees’ Satisfaction of job is explained by their Intelligence of emotion.

Shooshtarian, Z., Ameli, F., & Lari, M. A. (2013) conducted a study on “The Effect of Intelligence of Emotion in the Workplace on Job Satisfaction, Job Performance and Engagement” taking into account the total number of 350 participants in this study. The results showed that employees ‘Intelligence of Emotion has positively correlated with job satisfaction, so that there has a big relationship between Intelligence of Emotion in the workplace and their job performance and no relationship between employees’ Intelligence of Emotion and their engagement.

Mohammed & Fekry (2018) conducted a study on “Relationship between Intelligence of Emotion of nursing directors and Satisfaction of job of nursing staff”. The study showed that positively high correlation between the Intelligence of Emotion as well as a moderate level of job satisfaction among head nurses. Karunanithy, K., & Ponnampalam, A. (2013) examined a study on “The impact of Stress on the Employee contribution in banking concern of Ceylon in the Eastern Province” considering a total sample of 88 employees in all the branches in the Eastern Province for this study found that negative association between stress and performance. It is showed that stress has an impact on the performance of the employee of Commercial bank PLC at the same time. The influence of stress in the context of the organization is greater than of work related and individual emphasize.

Kassim, S. I., Bambale, A. J., & Jakada, B. A. (2016) reviewed a study on “Intelligence of Emotion and Satisfaction of job among Professors at Kano State universities”, with 335 representing the teaching population of Kano State. The study revealed that, significant relationship between the use of emotions, the regulation of emotions and job satisfaction, while the emotional assessment and other assessments of emotions found no association with job satisfaction. It is recommended that universities establish an emotional quotient program that is used to develop universities’ ability to get the most out of faculty and build strong relationships in the workplace.

Chatterjee, P. (2016) examined a study on “Stress of work, Employee Satisfaction of Job, and Mental Health of the employee: A Comparative Analysis among the Banking and I.T. Professionals” considering the total sample of 240 employees (60 each employee from private as well as public Bank and IT sector) for this study found that private sector of bank employees faces maximum job dissatisfaction. Whereas, the IT govt sector encounters the least job dissatisfaction.

Raj. A. E. A., & Julius. S. (2015) analysis, a study on “Stress of Occupation among the staff operating public and private sector banks in Karaikal District of Puducherry union area, India” considering the total sample of 316 employees for this study found that there is no statistical evidence of significant difference in the Stress of Occupation between public and private sector bank employees. This analysis shows that different work stressors affecting private sector bank employees and the other factors are the job stressors for employees of public sector banks. The study suggests that for both public and private sector bank employees to evolve a policy and plan to minimize the Stress of job among their employees by using technological advancement.

3.0 Hypotheses

For this study, the following hypotheses must be tested:

H₀₁: The level of Stress of Occupation will not be high among the employees of Private in comparison to Public Banking Sector.

H₀₂: The level of Intelligence of Emotion will not be different among the employees of Public and Private Banking Sector.

H₀₃: Employee contribution and Satisfaction of job will not be negatively correlated with Stress of Occupation among the employees of both Public and Private Banking Sector.

H₀₄: The level of Stress of Occupation among the employees of both Public and Private Banking Sector will not predict Employee contribution and Job Satisfaction.

H₀₅: Intelligence of Emotion is not positively correlated with Employee contribution and Satisfaction of job of both Public and Private Banking Sector.

H₀₆: Intelligence of Emotion will not be negatively correlated with Stress of Occupation among the employees of both Public and Private Banking Sector.

H₀₇: Intelligence of Emotion of the employees is not a moderating variable influencing the impact of Stress of Occupation on Employee contribution and Job Satisfaction.

H₀₈: There is no significant relation between the level of the position of employee with Stress of Occupation, Intelligence of emotion, Employee contribution and Satisfaction of job among the employees of both Public and Private Banking Sector.

4.0 Methodology

The Methodology of the Study consists of – (i) Sample, (ii) Tests/ Instrumentation, and (iii) Test Administration.

(i) Sample

The target sample size was on all different levels (Lower, middle, and higher management) of employees working in the private and public Banking sector. N=250. The demographic characteristics like Age, Gender, Marital Status, type of sector and company, Employee position, Educational Qualification, and Experience considered for the study for employees working in both Private and Public Banking sector are given in Table 1.

(ii) Tests/Instrumentation

In the present research, the impact of one independent variable (Job stress) on two dependent variables, namely Satisfaction of job and Employee contribution between the position of the employees in the organization has been studied in the context of employees working in both public and private Banking sectors. Also, the Intelligence of Emotion of the employees is a moderating variable influencing the impact of Stress of Occupation on Employee contribution and Job Satisfaction. Standardized questionnaires/tests/tools were used for this research study. A Simple random sampling technique has been used to collect primary data.

Table 1: Demographic Variables

Demographic Variables	Categories	Frequency	Percent
Gender	Male	179	71.6
	Female	71	28.4
Age	20 - 30 Years	190	76.0
	31 - 40 Years	31	12.4
	41-50 Years	9	3.6
	51 - 60 Years	12	4.8
	> 60 Years	8	3.2
Marital Status	Married	50	20.0
	Unmarried	200	80.0
Educational Qualification	10th STD	4	1.6
	12th STD	14	5.6
	Under graduate	104	41.6
	Masters	108	43.2
	MPhil/PhD	20	8.0
Company	Private	165	66.0
	Government	85	34.0
Years of Experience	0-3 Years	149	59.6
	4-6 Years	39	15.6
	7-8 Years	23	9.2
	9-10 Years	9	3.6
	>10 Years	30	12.0
Position in the organization	Lower Management	86	34.4
	Middle Management	115	46.0
	Top Management	49	19.6

Source: Based on authors' study

(iii) Test Administration

A structured and standardized questionnaire was used to conduct the survey. This test was administered to an individual and his/her colleagues. The scale of work Stress, Intelligence of emotion, Employee contribution and Satisfaction of job were administered individually on 250 individuals selected from the sample. Everyone was personally connected via face to face and the Internet. Explain the purpose of the research and then seek help with this research. I requested each of individual was requested to spare quarter-hour time ideally at any time betting on his/her availableness for information collection. After the respondent answered all the questions, the researcher took the booklet and expressed gratitude to the respondent for their cooperation. It had been assured to the respondents that each of the information collected for the study are confidential and be used just for the research study.

5.0 Data Analysis

The Data analysis for this study was performed using version 25 of the Social Science Statistics Package (SPSS). Frequency analysis was carried out for demographic variables on the nominal and ordinal scales.

5.1 Results and Discussion

Table 2: Reliability Analysis of all Dimensions

Dimension	Cronbach's Alpha	N of Items
All Variables	0.945	125
Stress	0.946	46
Employee contribution	0.878	13
Job satisfaction	0.939	20
Intelligence of emotion	0.966	16

Source: Based on Authors' study

Here Cronbach Alpha is 0.945 which indicates higher level of internal consistency for the specific sample.

5.2 Testing of hypotheses

HA1: The level of Stress of Occupation will be high among the employees of Private in comparison to Public Banking Sector.

Table 3 shows, the p value is 0.043 for Private and Public Banking sector, which is less than 0.05. So, the Alternative Hypothesis is Accepted.

HA2: The level of Intelligence of Emotion will be different among the employees of Public and Private Banking Sector.

Table 4 shows, the p value is 0.839 for Private and Public Banking sector, which is greater than 0.05. So, the Alternative Hypothesis is rejected.

HA3: Employee contribution and Satisfaction of job will be negatively correlated with Stress of Occupation among the employees of both Public and Private Banking Sector.

Table 5 shows, the level of Stress of Occupation is positively correlated with the Employee contribution and Job satisfaction. So, Alternative Hypothesis is rejected. Employee contribution will be positively correlated with the level of Stress of Occupation (Low degree). Satisfaction of job will be positively correlated with the level of Stress of Occupation (Moderate degree).

HA4: The Stress of Occupation level among the employees of both Public and Private Banking Sector will predict Employee contribution and Job Satisfaction.

Table 6 indicates that the significance value is less than 0.05. So, Alternative Hypothesis is accepted and indicates that, overall, the regression model statistically strong match for the

outcome variable (i.e., it is a good fit for the data). The Regression equation is: Employee contribution = $21.799 + (0.051 * \text{Stress})$. Here, p value is 0.011 for Stress, which is less than 0.05. The linear regression analysis results show that the Stress significantly predicting the Employee contribution ($P < 0.05$).

Table 7 indicates that the significance is less than 0.05. So, Alternative Hypothesis is accepted and indicates that, overall, the regression model is a strong match for the data since it statistically substantially predicts the result variable. The equation of Regression is: Satisfaction of job = $30.969 + (0.268 * \text{Stress})$. Here, significance value is 0.000 for Stress, which is less than 0.05. The linear regression analysis results show that the Stress significantly predicting and influence the Job satisfaction.

HA5: Intelligence of Emotion is positively correlated with Employee contribution and Satisfaction of job of both Public and Private Banking Sector.

Table 8 shows that, Intelligence of Emotion is positively correlated with Employee contribution and Satisfaction of job because Significance value is less than 0.05.

HA6: Intelligence of Emotion will be negatively correlated with Stress of Occupation among the employees of both Public and Private Banking Sector.

Table 9 shows, that the Intelligence of Emotion will be negatively correlated with Stress of Occupation among the employees of both Public and Private Banking Sector.

HA7: Intelligence of Emotion of the employees is a moderating variable influencing the effect of Stress of Occupation on Employee contribution and Satisfaction of job.

Table 10 shows that, Stress of Occupation (0.178) is positively and significantly related to Employee contribution ($P < 0.05$). The interaction and moderation effect of Intelligence of Emotion of the employees significantly influences the impact of Stress of Occupation on Employee contribution ($P < 0.05$). The moderation effect of EI and Stress on employees' performance was reduced by -0.102.

Table 11 shows that, Stress of Occupation (0.602) is consistently and substantially associated to Satisfaction of job ($p < 0.05$). The interaction and moderation effect of Intelligence of Emotion of the employees did not significantly influence the impact of Stress of Occupation on Satisfaction of job ($P > 0.05$). There was no moderation effect of EI on Stress on employees' job satisfaction.

HA8: There is a relationship between the position of employee with Stress of Occupation, Intelligence of emotion, Employee contribution and Satisfaction of job among the employees of both Public and Private Banking Sector.

Table 12 shows that, the significance value is 0.037 for Stress. So, Alternative Hypothesis is accepted for Stress of Occupation, but alternative hypothesis is rejected for Intelligence of emotion, Employee contribution and Job Satisfaction.

6.0 Conclusion

Stress of Occupation may be either useful or harmful to Employee contribution and Job satisfaction, relying upon its level. From this research study, most employees find their

job Stressful, but Stress increases their productivity in return. Work overload, bad coworker relationships, and competitive professional advancement affect males as well as women. As a result, the stressed might contribute to an increase in corporate productivity, overall improvement in Employee contribution and good work quality, increased Job satisfaction, and so on.

This study concludes that employees in the private banking sector are exposed to higher levels of stress than public banking sector. This analysis shows that, there is a substantial variation in the level of position (Low, Middle, and Top management) of a worker with Stress of Profession among employees in both the public and private banking sectors.

On the other hand, happy/satisfied workers try harder to get the job done and consequently have better Satisfaction of job for which they are motivated for better Job performance. Hence, it tends to increase the overall performance of the organization. But when employees are dealing with too much of Stress at work and feel insecure at workplace, then they find it difficult to focus on tasks.

Each of us has a unique personality, various needs and wants, and varied methods of expressing our emotions. The capacity to identify how you're feeling, grasp what they're conveying to you, and observe how they influence those who surround you is known as Intelligence of emotion. It also has to do with how you see other people; if you know how others feel, you can handle relationships much more skillfully. This is because an emotionally intelligent individual will be able to manage their emotions, cope well with a variety of people and situations, perform better, and be happier at work. The findings revealed that in the banking industry, there is a substantial association between employee contribution and work satisfaction in terms of Intelligence of emotion factors such as self-perception, self-regulation, self-motivation, and social competence.

Employees with high Intelligence of Emotion perform better, but this does not lead to higher job satisfaction. According to the goals of this study, intelligence of emotion is a moderating factor that affects the effect of Stress of Occupation on employee contribution.

Thus, it can be concluded that as employees are valuable resources of the organization, it's necessary for the private and public employees to be Stress free and Anxiety free to boost good Mental health to perform well and be successful in achieving their goals.

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Appendix

Table 3: Frequency analysis for Stress, Employee contribution, Satisfaction of Job and Intelligence of Emotion scales

Stress Scale		
	Frequency	Percentage
Low	106	42.4
Moderate	94	37.6
High	50	20.0
Employee contribution Scale		
Very low	9	3.6
Low	17	6.8
Average	97	38.8
High	93	37.2
Very high	34	13.6
Satisfaction of job Scale		
Low	42	16.8
Moderate	150	60.0
High	58	23.2
Intelligence of Emotion Scale		
Low EI	39	15.6
Average EI	141	56.4
High EI	70	28.0

Source: Based on authors' study

Table 4: The Level of Stress of Occupation of Employees from Private and Government Banking Sector

Sector	Categories	N	Mean	Std. Deviation	Std. Error Mean	t Value	95% Confidence Interval of the Difference		P Value
							Lower	Upper	
Banking sector	Private	165	129.255	30.142	2.347		-8.016	4.154	
	Government	85	137.271	32.925	3.571	-			
						1.930			0.043

Source: Based on authors' study

Table 5: The level of Intelligence of Emotion among the Personnel in Private and Government Banking Sector

Sector	Categories	N	Mean	Std. Deviation	Std. Error Mean	t value	P Value
Banking	Private	165	57.3818	21.75458	1.69359	0.204	0.839
	Govt	85	56.7647	24.42708	2.64949		

Source: Based on Authors' study

Table 6: Pearson Correlation on Employee Contribution and Satisfaction of Job versus Stress of Occupation of Employees Working in Public and Private Banking Sectors

Variables		Employee contribution Total	Satisfaction of job Total
Stress Total	Pearson Correlation	.172**	.521**
	Sig. (2-tailed)	0.066	0.070

Source: Based on authors' study

Table 7: Regression Analysis on the Level of Stress of Occupation on Employee Contribution

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	984.867	3	328.289	3.537	.015 ^b
	Residual	22832.317	246	92.814		
	Total	23817.184	249			
a. Dependent Variable: Total Employee contribution						
b. Predictors: (Constant), Stress Total						

Source: Based on authors' study

Table 8: Coefficients Table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.799	2.890		7.543	.000
	Stress Total	.051	.020	.165	2.551	.011
a. Dependent Variable: Employee contribution Total						

Source: Based on Authors' study

Table 9: Regression Analysis on the Level of Stress of Occupation on Satisfaction of Job

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21256.823	3	7085.608	37.437	.000 ^b
	Residual	46559.677	246	189.267		
	Total	67816.500	249			
a. Dependent Variable: Total Satisfaction of Job						
b. Predictors: (Constant), Stress Total						

Source: Based on authors' study

Table 10: Coefficients Table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	30.969	4.127		7.504	.000
	Stress Total	.268	.029	.507	9.292	.000

a. Dependent Variable: Satisfaction of job Total

Source: Based on authors' study

Table 11: Pearson Correlation between Intelligence of Emotion Score with Employee Contribution and Job Satisfaction

Correlations			
		Employee contribution Total	Job satisfaction Total
Total Intelligence of Emotion	Pearson Correlation	.147	0.035
	Sig. (2-tailed)	0.020	0.006
	N	250	250

Source: Based on authors' study

Table 12: Correlation between Intelligence of Emotion Score with Stress of Occupation

		Stress Total
Total Intelligence of Emotion	Pearson Correlation	-0.039
	Sig. (2-tailed)	0.037
	N	250

Source: Based on authors' study

Table 13: Regression Analysis has been used for Intelligence of Emotion Influencing the Level of Stress of Occupation on Employee Contribution

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.828	3	1.943	3.537	.015 ^b
	Residual	135.102	246	.549		
	Total	140.930	249			
2	Regression	18.786	6	3.131	6.229	.000 ^c
	Residual	122.144	243	.503		
	Total	140.930	249			

a. Dependent Variable: Employee contribution
 b. Predictors: (Constant), Stress
 c. Predictors: (Constant), Stress, Interaction of EI and OS

Source: Based on authors' study

Table 14: Coefficients Table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.677	.222		7.543	.000
	Stress	.178	.070	.165	2.551	.011
2	(Constant)	1.820	.220		8.280	.000
	Stress	.453	.086	.419	5.246	.000
	Interaction of EI and OS	-.102	.021	-.695	-4.918	.000

a. Dependent Variable: Employee contribution

Source: Based on authors' study

Table 15: Regression analysis has been used for Intelligence of Emotion influencing the level of Stress of Occupation on satisfaction of Job

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.142	3	17.714	37.437	.000 ^b
	Residual	116.399	246	.473		
	Total	169.541	249			
2	Regression	53.916	6	8.986	18.885	.401 ^c
	Residual	115.625	243	.476		
	Total	169.541	249			

a. Dependent Variable: Job Satisfaction
b. Predictors: (Constant), Stress
c. Predictors: (Constant), Stress, Interaction of EI and OS

Source: Based on authors' study

Table 16: Coefficients Table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.548	.206		7.504	.000
	Stress	.602	.065	.507	9.292	.000
2	(Constant)	1.597	.214		7.467	.000
	Stress	.635	.084	.535	7.553	.000
	Interaction of EI and OS	-.016	.020	-.097	-.777	.438

a. Dependent Variable: Job Satisfaction

Source: Based on authors' study

Table 17: F-test has been used for Relation between the Level of the Position of Employee with Stress of Occupation, Intelligence of emotion, Employee Contribution and Satisfaction of Job among the Different Level of Position

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval		F	P
						Lower Bound	Upper Bound		
Stress	Lower Management	86	125.4535	28.25333	3.04664	119.3960	131.5110	2.900	0.037
	Middle Management	115	135.5217	33.28119	3.10349	129.3738	141.6697		
	Top Management	49	135.1224	30.26111	4.32302	126.4304	143.8145		
Employee contribution	Lower Management	86	29.9302	9.08754	0.97993	27.9819	31.8786	0.551	0.577
	Middle Management	115	31.3913	9.96810	0.92953	29.5499	33.2327		
	Top Management	49	30.8980	10.57167	1.51024	27.8614	33.9345		
Job satisfaction	Lower Management	86	57.8023	15.59323	1.68146	54.4591	61.1455	2.408	0.092
	Middle Management	115	62.8435	16.62886	1.55065	59.7717	65.9153		
	Top Management	49	61.7755	17.27747	2.46821	56.8128	66.7382		

Source: Based on authors' study

Table 18: Coefficients Table

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval		F	P
						Lower Bound	Upper Bound		
Intelligence of emotion	Lower Management	86	54.4884	22.24714	2.39897	49.7186	59.2582	0.923	0.399
	Middle Management	115	58.6783	22.43491	2.09207	54.5339	62.8226		
	Top Management	49	58.3469	23.87515	3.41074	51.4892	65.2047		

Source: Based on authors' study

Study on Branding and Its Influence: A Perspective

Avinash Ricky* and G. Dhananjay**

ABSTRACT

Branding is more than simply a term; it has the power to alter people's behaviour and consequently, their purchasing behaviour, and the process of creating a unique identity and an opinion on goods and services of a company is called "branding." It includes creating a name, a logo, and other written and spoken elements that distinguish a business from its competitors. A company may improve its market share, cultivate loyal customers, and develop a solid reputation with the aid of effective branding. The main facets of branding, such as brand strategy, brand identity, brand positioning, and brand management, are examined in this abstract. In the digital era, where social media and internet platforms have developed into crucial tools for connecting with and engaging with customers, it also looks at the function of branding. The abstract emphasizes the significance of consistency, authenticity, and customer-centricity in creating a strong brand that appeals to its target market in its last paragraph.

Keywords: Branding; Marketing; Consumer behaviour; Influence of brand.

1.0 Introduction

Any business or organisation must consider branding as a key component. Branding is the process of giving a service, a product, or a business a distinctive character and personality and marketing it to the intended market. A company may stand out in a competitive market and develop a solid, devoted customer base with the aid of a great branding strategy

1.1 Objectives

- To understand the concept of branding/brand.
- To identify the key points and issues.
- To demonstrate the influence of branding on consumer behavior.
- To analyze real-life scenarios.
- To improve the perception of branding.

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1.2 The importance of branding

A company can benefit from having a strong brand in many ways. First of all, it can promote client loyalty. Consumers who trust, identify with, and have had favourable experiences with a brand are more inclined to stick with it. Second, branding can aid in setting a company apart from its rivals. A strong brand makes a company strong in the dynamic market and also attracts new customers. Ultimately, branding can contribute to the development of reliability and trust. Building a long-term relationship with clients may be made much easier by having a strong brand that conveys a sense of excellence, stability, and dependability.

1.3 Creating a strong brand

Careful strategy and execution are necessary to build a powerful brand. These are some crucial actions to think about:

- What makes your brand unique? Establish the mission, personality, and values of your brand first. What values does your brand promote? What sets it apart? What distinguishes it from its rivals?
- Create your brand identity by creating your brand name and logo. These are the two main visual components of your brand identity. They must embody your brand's beliefs and personality while being straightforward and memorable.
- Create your brand's messaging; it should be clear and consistent across all media. It should convey the core of your brand and strike a chord with your intended market.
- Create brand awareness: Developing a powerful brand requires the development of brand awareness. To reach your target demographic and establish your brand recognition, use social media, advertising, public relations, and other marketing channels.
- Keep your brand consistent: When it comes to branding, consistency is essential. Make sure your brand's visual identity, messaging, and logo are consistent across all platforms and channels.

1.4 The future of branding

The branding industry has seen a lot of change recently. Businesses are coming up with fresh, inventive methods to connect with customers and develop their brands as technology advances. Following are a few recent developments in branding:

- Personalization: In the realm of branding, personalization is becoming more and more crucial. Consumers anticipate that brands will recognise their unique wants and preferences and provide specialised solutions.
- Customers are looking for brands that are dedicated to sustainability and ethical business practices as environmental issues gain traction.
- Augmented reality: Businesses now have new options to interact with customers and provide immersive brand experiences thanks to this technology.
- Brand Purpose: Consumers are increasingly seeking out brands with a distinct purpose and a dedication to having a positive impact on the world.

1.5 The psychology behind branding

Maybe, the question WHAT DOES BRANDING HAVE TO DO WITH PSYCHOLOGY arises in people's minds. Remember that branding is an active, continuing activity that takes your effort; it is not something you do once and that's it. Customers are connected to your business through its brand. The way you express the values of your brand to them will depend on how you come across to them as a reliable friend or someone to aspire to. Customers regard brands as people rather than impersonal businesses, which is why it works.

1.6 The strategy of brand psychology

Branding psychology has scientific roots; it's not just a clever marketing buzzword. It focuses particularly on how brands interact with target consumers using accepted psychological principles.

These are Some principles:

- Colour Psychology
- Pattern Recognition
- A sense of belonging and in-groups

1.6.1 Colour psychology

In essence, the way you feel when you see different colours varies, culture affects some of these emotions, while others seem intrinsic. Consider how the colours red and green are related to the natural world and how red denotes fire, rage, and hot tempers. That is the use of colour psychology. Brands use colours to convey their beliefs, their target market, and their price points.

RED: passion, love, strength, and assurance

BLUE: peace, composure, wisdom, and trust

ORANGE: Effort, vigour, playfulness, and optimism

YELLOW: Hope, joy, cheerfulness, and pleasure

GREEN: Nature, tranquilly, peace, and regeneration

PURPLE: Wisdom, compassion, creativity, and leadership

PINK: Positive, original, artistic

BLACK: Strong, contemporary, sophisticated, and powerful

GREY: neutral, composed, sage, and competent

BROWN: Natural, honest, cheerful, and comfortable

1.6.2 Pattern recognition

Human nature is bred to recognize patterns. A successful brand is consistent, according to branding psychology. Consumers will have more faith in you if your brand consistently offers the same output across all interactions, including the same quality, colour line, logo, and graphics. Probably the most important aspect of loyalty is trust. What happens if you don't give your audience consistency? They are unable to form a connection with your

brand. Going hot and cold with things like your interactions, appearance, and experience will indeed create your brand unmemorable since you have to develop something consistent for people to remember you. Even if your brand is designed to be wild, eccentric, and spontaneous, this is true.

1.6.3 A sense of belonging and in-groups

Psychologically, we need a sense of belonging. Our health depends on feeling like we belong, either to a family, a community, a nation, or a subgroup inside a country. We must be a part of the group. What does this signify for branding psychology? That your brand needs to be clear about who you are and what you stand for. Every member of that in-group who is also interested in your product or service will find it appealing.

Nike is one of the best examples of this aspect of brand psychology. Some love sneakers and others merely wear them. The latter group is known as sneaker-heads. Those that collect, trade, and, of course, wear particular sneaker models like Nike Air Jordans and Adidas Yeezys are known as sneaker-heads. Nike has developed branding and more general marketing methods to appeal to Sneaker-heads because it understands its place in this subculture.

1.7 Five brands that proved king in the market

Sincerity-These companies, value families and are courteous and considerate. Band-Aid is a sincere brand that wants to be an essential part of every family's medicine cabinet.

Excitement-Companies that embody the enthusiastic personality often project an air of carefreeness, youth, and vivacity. Red Bull is a brand of excitement that emphasises unrestrained behaviour's people might engage in when they consume Red Bull and experience "wings."

Ruggedness-With athleticism, toughness, and an unpolished appearance, a brand hopes to inspire its audience with the rough persona. By their black label and marketing as an old-school "manly" spirit, Jack Daniels expresses their brand's roughness.

Competence-These companies emphasise leadership, and they value their stature as aspirational brands. Chase Bank is a competent brand, as seen by its dependable geometric logo and straightforward customer service style.

Sophistication-Companies having this persona aren't afraid to flaunt their opulence and status. A sophisticated brand, Grey Goose uses frosted bottles and soothing blue for its labels.

2.0 Research Methodology

2.1 Sources of data

The information was collected from the sources of secondary which includes websites, newspapers, magazines etc., The gathered information state that how branding influences the purchasing behaviour, purchasing preferences of people over the years.

3.0 Branding Influences Minds of Consumers with Real Life Examples

3.1 Example 1

The internet was filled with jokes and memes after Apple announced its most recent iPhone series in October. The meme that probably circulated the most among these jokes was the one that suggested buying an iPhone by selling your kidney.

Yet, the kidney meme is not brand new and ended up becoming Chinese guy Wang Shangkun's horrifying reality. He is 25 years old. Shangkun, then 17 years old and from the Chinese province of Anhui, traded his kidneys for 1,76,742 rupees at that time (in 2011) to purchase an iPad 2nd generation and an iPhone 4th generation. Shangkun was cited as stating at the time, "I need two kidneys, why?" "One is enough."

He returned to a message from a dark market body organ trader in an internet discussion forum because he was so eager to buy Apple products. In this conversation, he said that selling the organ would bring in over \$3,000 in dollars.

Immediately after this chat, the then-17-year-old Wang had his right kidney removed during an unlawful procedure in the province of Hunan. This narrative explains how individuals and customers view brands. They view it as prestige rather than as being beneficial.

3.2 Example 2

Have we ever noticed? Maybe we never noticed. A liter water bottle costs ₹20, while a 20-liter water bubble or can costs ₹10. The one-liter bottle is small, and water tastes inferior when compared to the convenience of water bubbles or a can and why the price of a bottle of water is 20 rupees? Perhaps you can take it anywhere; it is very good, but it should cost between five and eight rupees when compared to a 20-liter water bubble or a can. Companies manufacture and sell water bottles for their profit. (THINK ABOUT IT).

3.3 Example 3

A couple from the middle class is strolling down a city street. The man, a car lover, becomes all thrilled as a bright white Porsche passes them.

Whoa!" the man exclaims. The new Taycan was that. You don't typically see that. Did you enjoy it?

Passively, the woman says, "I didn't notice."

They proceed to stroll down the street. The woman whispers in the man's ear as another woman wearing a bright pink dress goes by.

She muttered, "That girl was sporting a Gucci belted dress coat." "Those items are really pricey. She must be a child of a trust fund.

I missed it, the man admits.

This is how brands attract and affect consumer thoughts.

3.4 Example 4

Nike is the market leader when it comes to creating and supplying athletic wear and sporting items. Yet in only 2017, they generated more than \$34 billion in sales globally. They rank among the top brands on the planet and among the elite influencer marketers. The brand has worked on numerous projects with celebrities and social media influencers to sell its products.

With its new Air Vapormax series, the brand decided to partner with the well-known Channel on youtube, “What’s Inside.” The father-and-son team that runs the channel is renowned for dissecting commonplace items to reveal what’s within. For their two channels, the team was able to sign up nearly 7 million subscribers.

The YouTubers developed several videos for their campaign in which they combined the company’s messaging with the distinctive aspects of each of their separate channels. They used the “WHAT’S INSIDE?” channel “FAMILY” to publish vlogs and Q&As. In addition, they made a video in which they opened a Nike Air Vapormax to disclose its contents.

This video has had over 4 million views and 33,000 likes. Almost 51,000 individuals have seen the Nike Travel videos. The commercial effort also advertised Nike’s new product range.

3.5 Example 5

The past few years have seen substantial expansion for Subaru. And a significant part of this growth has been attributed to influencer marketing. In essence, their revenue grew by 10% in 2016. “Meet an Owner” was one of their programs, and it had been effective in its influencer marketing efforts. The aim was to increase brand interaction and brand recognition. They worked with 20 individuals from diverse areas to generate original content for Subaru.

Zach, for example, filmed a video in which he attempted to impress his partner while driving a Subaru. This one video has been viewed by over 8 million people.

The Meet an Owner campaign generated millions of likes and thousands of comments for 58 sponsored posts, with a total engagement percentage of 9%. As a result of the campaign, the brand has seen a boost in brand awareness.

3.6 Example 6

The new decor line that Pottery Barn and interior designer Ken Fulk collaborated on needed to be promoted. They made the decision to collaborate with an influencer who has a flair for interior design to present their products in an extremely appealing way.

For the campaign, the company went with Holly Becker, the author of the site Decor8. The influencer used items from the collection to demonstrate various applications for her readers to use them in their own homes.

Also, she ran a contest where readers could win a \$500 gift card. She also invited readers to name their ideal dinner party companion in order to increase participation in the contest.

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I am Y. Avinash Ricky, a student at Narayana Engineering College in Nellore, where I am studying an MBA. I want to express my gratitude to my sir, who helps and mentors me in all of my endeavours. I also received writing assistance from my professor and MBA Dean, Dr. G. Dhananjhay sir.

5.0 Conclusion

A crucial component of any company or organisation is its branding. In a crowded market, it helps to develop distinction, loyalty, and trust. Businesses can develop a distinctive identity and personality that appeals to their target audience by carefully designing and implementing a branding strategy. Businesses must stay current with the newest trends and technologies as the field of branding continues to develop if they want to remain competitive and communicate with customers.

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Hierarchical Multiple Linear Regression Modeling on Predictions of High-Performance Worksystems (HPWs) on Employee Attitudinal Measures (EAMs): A Case Study

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ABSTRACT

Hierarchical Multiple Linear Regression (HMLR) analysis is a complex statistical framework which is used to investigate the variance among the dependent variables during correlation & regression analysis of the survey data. The technique is useful to predict the variables at different hierarchical levels. In the present research, HMLR methodology has been applied to estimate the impact of High-Performance Worksystems (HPWs) 'Best Practices' on the Employee Attitudinal Measures (EAMs). The complex interaction between HPWs and EAMs was examined using this technique using a survey research targeting Indian Iron and Steel manufacturing company. Six bundles of facets (three each for variables under consideration) were used during survey having total hundred nos of questions. Nine research hypotheses were formulated and tested for the conformation using the data gathered by the survey. It was concluded that integrating the 'Best Practices' within the organizational can lead to improvement of overall employee satisfaction.

Keywords: *Corporate performance; Descriptive statistics; Employee attitudinal measures (EAMs); Hierarchical multiple linear regression; High-performance worksystems (HPWs).*

1.0 Introduction

Business world has been witnessing convergence between Human Resource Management (HRM) practices and human aspects of the organizations and its positive impact on the organizational performances. This ushered a new stream of research interest in the field of HRM worldwide. This new research is majorly around various human-centric strategic factors like organizational work culture, recruitment policies, 360⁰ performance appraisal systems, job rotations, team building, teamwork, remunerations & compensations, etc and their impacts on the organizational business strategies like employee commitments, motivation for work, work quality, intention not to quit, etc.

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Thus, organizations also started following and implementing these new ‘Best Practices’, which had led to the emergence of the new notion of HRM titled as High-Performance Worksystems (HPWs). Same is also referred as High-Commitment HRM, or High-Involvement HRM by different researchers (Paracha, 2014; Alatailat *et al.*, 2019; Tran *et al.*, 2022).

HPWs are defined as set of interrelated HRM ‘Best Practices’ with an objective to enhance and optimize the organizational overall performance via promoting employee development. The whole concept is to target the employee experience and enhance their attitude towards the work and organization. This may include employee training, capability augmentation, flexible working systems, inclusive management policies, participative work culture, work recognition, and manager-employee cooperation. The key idea is to bring the synergetic effect of this convergence of the HRM ‘Best Practices’ and cluster of employee-centric organizational strategies.

Thus in nutshell, the overall aim is to reap the benefits of HPWs initiatives by enhancing organizational inclusive performance. The research on HPWs and its impact on the organizational performances have been reported by numerous researchers in recent times and they highlighted the importance of incentive programs, adequate remunerations & compensation structure, learning & development programs, participative work culture, job satisfactions and retention strategies. Few reports has been also reported to study, and examine the linkages between overall corporate performance and employee satisfaction (Guest, 2011; Garg & Punia, 2017; Narbariya, 2022).

The research in the present article has been undertaken to review and establish an empirical relationship between independent variables (EAMs) and dependent variables (HPWs) keeping in centre the overall corporate performance. The methodology adopted was to effectively analyze and interpret the survey data of the respondents from a target organization (Indian Large Steel-Making Organization) using Hierarchal Multiple Linear Regression (HMLR) technique. Basically, it’s based on the least square method used to demonstrate whether the variable under consideration can statistically explain significantly the magnitude of the variance among dependent variables considering all other variables simultaneously.

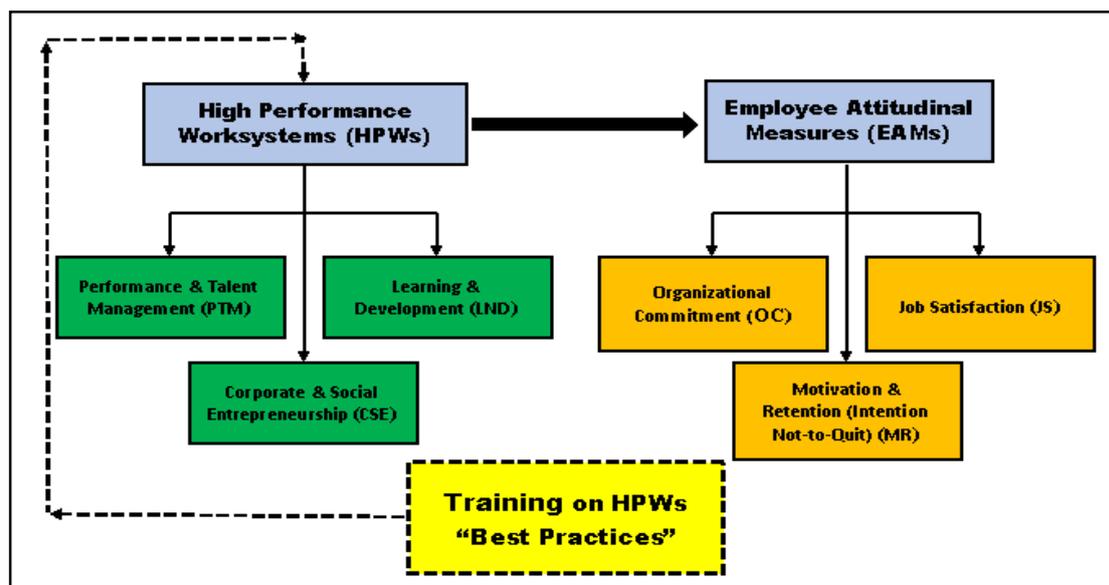
The quantitative findings from the survey were subjected to descriptive statistics analysis for all the variables under consideration (both for independent & dependent variables) including initial demographic survey. The complex interaction and its effect on employee attitudes were examined based on the six primary pillars, *i.e.* three bundles for each of the facets. At the end of the survey, recommendations were shared with the company to enhance its overall efficiency by imparting leadership training on HPWs ‘Best Practices’. The objective to assess the impact of HPWs and EAMs variables on the efficiency and quality of company’s operations considered a “Black Box” by most of the researchers was successfully achieved (Foley, 2012; Panigrahi, 2019).

2.0 Research Design & Field Survey

The conceptual framework to investigate the complex interaction between HPWs and EAMs is depicted in Fig. 1. Based on the extensive literature survey and deliberations with practicing managers, technocrats, and engineers from the construction industry, three constructs (Bundles) for each of the variables under consideration were identified along with underlying facets. HPW was treated as an independent variable, whereas EAMs were considered as a dependent variable. Both the independent variables (HPWs Best Practices) and dependent variables (EAMs) were each bundled into three major pillars. Performance & Talent Management (PTM); Learning & Development (LND); and Corporate & Social Entrepreneurship (CSE) for HPWs and Organizational Commitment (OC), Job Satisfaction (JS) and Motivation & Retention (MR) for EAMs. The construct of the variables under consideration along with their operationalization is shown in Table 1 (Do & Shipton, 2019; Kaur *et al.*, 2020a, 2020b, 2021).

The empirical evidences was collected through the survey by framing a problem statement (*i.e.* close-ended research question) - “How HPWs Best Practices impact the EAMs in a typical Indian corporate environment, which can be investigated through the impact of work quality and job satisfaction of the employees on the overall organizational performance”. This resulted into nine research hypotheses as obtained from the combinations of variables under consideration. All hypotheses assumed to have a positive effect on EAMs on HPWs as shown in Table 2.

Figure 1: Conceptual Framework of Interaction between HPWs & EAMs



Source: Based on authors' study

Table 1: Details of Variables, Bundles and Facets*

Variables	Bundles	Bundle Codes	Facets	Facet Codes
High Performance Worksystems (HPWs) Independent	Performance & Talent Management	PTM	Job Description	PTM_01
			Performance Appraisal	PTM_02
			Rewards & Recognition	PTM_03
	Learning and Development	LND	Innovations & Industry 4.0	LND_01
			Employee Training	LND_02
	Corporate & Social Entrepreneurship	CSE	Corporate Entrepreneurship	CSE_01
Corporate Social Responsibility			CSE_02	
Employee Attitudinal Measures (EAMs) Dependent	Organizational Commitment	OC	Organizational Loyalty	OC_01
			Organizational Core Values	OC_02
	Job Satisfaction	JS	Pay and Remuneration	JS_01
			Career Promotions & Communications	JS_02
	Motivation & Retention (Intention Not-to-Quit)	MR	Happier Workplace	MR_01
			Job Security	MR_02

Source: Based on authors' study

*Prepared by authors in consultation with mentors, corporate and extensive literature survey

Table 2: Construct of Hypotheses

Hypothesis-I:	HPWs Positively Influence Employees' Organizational Commitment (OC)
H I-01:	Performance & Talent Management (PTM) Positively Influence Employees' Organizational Commitment (OC)
H I-02:	Learning & Development (LND) Positively Influence Employees' Organizational Commitment (OC)
H I-03:	Corporate & Social Entrepreneurship (CSE) Positively Influence Employees' Organizational Commitment (OC)
Hypothesis-II:	HPWs Positively Influence Employees' Job Satisfaction (JS)
H II-01:	Performance & Talent Management (PTM) Positively Influence Employees' Job Satisfaction (JS)
H II-02:	Learning & Development (LND) Positively Influence on Employees' Job Satisfaction (JS)
H II-03:	Corporate & Social Entrepreneurship (CSE) Positively Influence Employees' Job Satisfaction (JS)
Hypothesis-III:	HPWs Positively Influence Employees' Motivation and Retention (MR)
H III-01:	Performance & Talent Management (PTM) Positively Influence Employees' Motivation & Retention (MR)
H III-02:	Learning & Development (LND) Positively Influence Employees' Motivation & Retention (MR)
H III-03:	Corporate & Social Entrepreneurship (CSE) Positively Influence Employees' Motivation & Retention (MR)

Source: Based on authors' study

The questionnaire for the survey was designed keeping above objective in mind and it is assumed that the designed questions will be a true representation of the complex interaction between the variables under consideration. There were two sections in the main survey (Refer

to Appendix). The Section-1 comprised questions on HPWs best practices, whereas the Section-2 consists of a procedure to identify the effect of HPWs on employees' attitudinal measures in form of their perceptions. Both bundles had 30 questions each. It was indicated that respondents indicate their choice by appropriate number (ranging from 1 to 5) and that there is no right or wrong answers. A higher score indicates that the current organization had adopted the respective HPWs best practice and vice-versa. A score of 3 indicates that the respondent has a mixed attitude toward the query raised.

3.0 Descriptive & HMLR Analysis

The demographic study followed by quantitative descriptive analysis including Bivariate Correlation & Regression Analysis was conducted for based on the data collected through the survey. The objective of demographic study was to properly comprehend and understand the target respondents, whereas the descriptive analysis was conducted to statistically test the magnitude and direction of the interconnections between the cluster variables. The objective of HMLR study was to analyze the net impact of underlying facets of the variables under consideration via computations of correlation coefficients for bundled variables.

It is statistically established that the sample size of target respondents plays a significant role in the survey analysis. There is a minimum threshold sample size which needs to be considered during the design of the survey model to arrive on the conclusive facts. In the present case, the target organization employed 8503 staff in total, which included all contractual-level workforces. In the present analysis, all such staff is neglected for the survey analysis. The initial questionnaire for demographic analysis was shared only to permanent employees on the organization's payroll. Authors followed-up minimum three times for the participation in this initial survey and found that only 1076 staff responded positively. Further, the incomplete and erroneous forms as filled by the respondents were rejected and finally, 1063 was the sample size (N) which went for the further descriptive survey analysis.

This amounted to around 54.50% of the lot size and as per the design standard for survey analysis, it was statistically found fit to go ahead (Eby & Allen, 2012; Safavi & Karatepe, 2018). The details of demographic statistics and analysis are shown in Table 3. Participants were mostly from middle & upper-middle age groups, *i.e.* 85.90% of the sample size (in between age group of 31 to 60 years). Males constituted the major workforce of around 89.80%. Interestingly, there was only 0.3% candidates above age of 60 years and rest were less than the age of 30 years. Around 28.90% of the workforce had working experience beyond 20 years and a large portion of the employees (*i.e.* 39.40%) were having experience in between 10 to 20 years. Surprisingly, a mere portion of the employees had lesser experience and the average service length of the employees was found to be around 15.8 years. Majority of the staff were at the level of workers, and supervisors (around 90.00%) and the rest of the workforce were senior-level executives and departmental heads. The educational qualification

of more than 60% of the staff was found to be bachelors. Unfortunately, around 21.00% of the workforce was not having higher educational qualifications.

Table 3: Individual Demographic Details

Sl. No.	Questions	Frequency	Percentage
1.	Current Position in Organization		
	Worker (Class-III)	695	65.4
	Supervisor (Class-III)	253	23.8
	Department Head (Class-II)	78	7.3
	Program Director / Executive (Class-I)	37	3.5
2.	Nos of Years Working in Present Organization		
	1 - 5 Years	104	9.8
	6 - 10 Years	233	21.9
	10 - 20 Years	419	39.4
	Beyond 20 Years	307	28.9
3.	Highest Level of Education		
	High School	228	21.4
	Diploma	193	18.2
	Bachelor Degree	572	53.8
	Master Degree / PG Diploma / PhD	70	6.6
4.	Age Range		
	18 - 30 Years	147	13.8
	31 - 45 Years	407	38.3
	46 - 60 Years	506	47.6
	More than 60 Years	3	0.3
5.	Gender		
	Male	955	89.8
	Female	108	10.2

Source: Based on authors' study

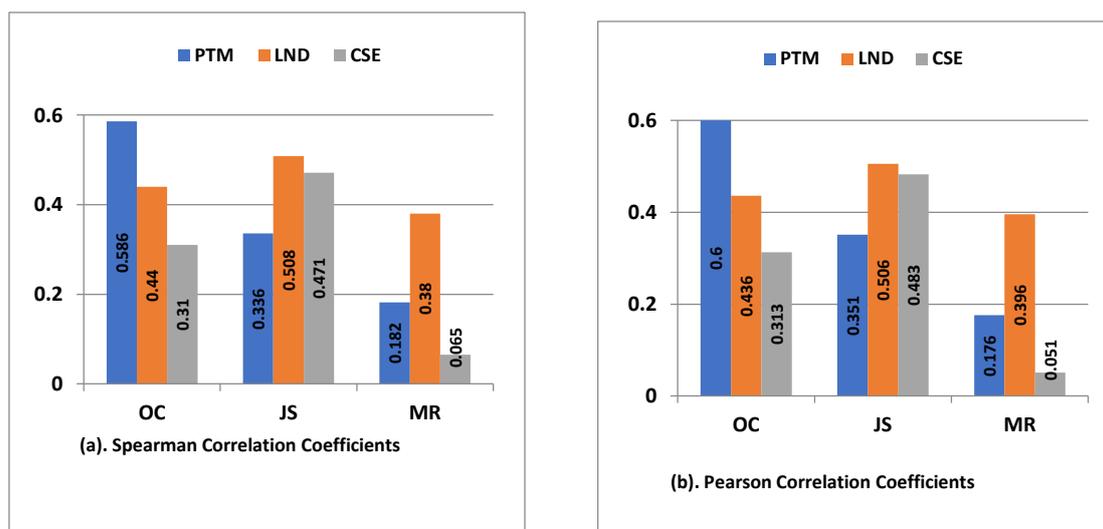
The statistical findings of the descriptive analysis are shown in Table 4. As observed the statements in the first column indicate low score choice, whereas the second column indicates high score choice. The values of the mean, and standard deviations including Cronbach's Alpha, Skewness, and Kurtosis are also displayed in the table. Any score beyond 3.00 is a high score and is significant and in support of the statement and vice-versa. Also, any value in between 2.75 to 3.25 assigned to any statement is considered as non-significant. Further, such neutral responses was verified and confirmed by the values of Cronbach's Alpha (*i.e.* high-reliability coefficients) as per statistical procedure. The objective of computing skewness and Kurtosis tests was to test the normality of the data with an objective to determine the robustness of the parametric conclusions. As per Bulmer's principle; all the three independent bundles (PTM, LND & CSE) and dependent bundle (OC) fall within the normal range of 0 to 0.50. Though, the skewness data of dependent bundles (JS & MR) range in between 0 to 0.50 and followed the normal distribution; the Kurtosis values were found to

be moderately non-normal. As a result, authors decided to conduct both the ‘‘Spearman’’ & ‘‘Pearson’’ tests to examine these inter-relationships.

The results of the correlation tests conducted are summarized in Figure 2 and it showed that these association ships between independent and dependent variables under consideration are in the anticipated directions. These analyses are useful only to depict the intensity and direction of relationship. It can be observed that dependent variables (OC & JS) have very strong association with all three HPWs bundles (except for CSE with OC and PTM with JS, which are at moderate levels). Also, the dependent variable (MR) had a very low association ship with independent variables (PTM & CSE), though their association with LND was at a moderate level. The strongest association was found in between OC and PTM.

To investigate and demonstrate the causation of some kind of the variables under consideration (*i.e.* effect on another component); it is a must to conduct the regression analysis. In the present paper, authors selected to use HMLR approach to study the convergence and synergistic effects of the association ship. It is expected that this study will help analyze the net effects of the bundles on each other and help evaluate which bundle of the HPWs is the significant predictor of EAMs. The generic statistical equation for HMLR considering two variables at a time is expressed as $Y_i = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3$. Where, Y_i is a Dependent Variable (*i.e.* EAMS); X_1 is a Performance and Talent Management (PTM) bundle; X_2 is a Learning and Development (LND) bundle; X_3 is a Corporate and Social Entrepreneurship (CSE) bundle; β_0 is the Intercept of the regression equation; $\beta_i - 4$ is the Coefficients of the regression equation for X_i ; $I = \{1-4\}$ (Ahmad, 2019; Kakate & Don-Baridam, 2022).

Figure 2: Summary of Correlations Coefficients*



Source: Based on authors' study

*All correlation is significant at the 0.01 level (1-tailed) and $N = 1063$

Y_1 , Y_2 , and Y_3 represent the three bundles of dependent variables, which also represent the hypotheses considered in the present research for EAMs. Each of the research hypotheses was examined using above HMLR technique and the results are presented in Table 5. It can be observed that HPWs bundles (PTM & LND) have positive effects (powerful and statistically significant) for the predictor OC, whereas CSE bundle adds no real contribution to the prediction. Also, HPWs bundles (LND & CSE) are powerful and statistically significant for the predictor JS but PTM bundle adds no real contribution. Additionally, HPWs bundle (LND) is also powerful and statistically significant for the predictor MR; whereas HPWs bundles (PTM & CSE) do not add any real contribution. Thus, LND bundle has a negative effect on the employee motivation and retention measure. Finally, the above results confirm that the null hypotheses H I-01, H I-02, HII-02, HII-03, and HIII-2 are accepted. Also, the null hypotheses H I-03, HII-01, HIII-01, and HIII-03 are not accepted and hence rejected.

Table 4: Descriptive Analysis of Variables

Facet Code	Mean	Std. Dev.	Average Mean	Average Std. Dev.	Cronbach's Alpha	Skewness	Kurtosis
PTM_01	3.60	1.78	3.38	1.77	0.67	0.24	-0.23
PTM_02	3.28	1.76					
PTM_03	3.27	1.77					
LND_01	3.68	1.72	3.37	1.74	0.71	0.33	-0.31
LND_02	3.05	1.76					
CSE_01	2.94	1.72	2.91	1.73	.68	0.26	-0.29
CSE_02	2.87	1.74					
OC_01	4.15	1.28	3.60	1.23	0.78	0.49	-0.35
OC_02	3.04	1.18					
JS_01	4.00	1.15	3.84	1.19	0.82	0.16	-0.66
JS_02	3.68	1.22					
MR_01	3.46	1.15	3.35	1.14	0.85	0.03	-0.77
MR_02	3.24	1.13					

Source: Based on authors' study

Table 5: HMLR Analysis of Predictors

Predictors	Variables	β	Partial Correlations	R-Square	Std. Error	Hypothesis	Remark
OC	PTM	0.363		0.803	0.444	H I-01	Accepted
	LND	0.339				H I-02	Accepted
	CSE		- 0.034			H I-03	Rejected
JS	PTM		0.072	0.530	0.301	H II-01	Rejected
	LND	0.334				H II-02	Accepted
	CSE	0.185				H II-03	Accepted
MR	PTM		- 0.007	0.313	0.241	H III-01	Rejected
	LND	-0.205				H III-02	Accepted
	CSE		- 0.025			H III-03	Rejected

*All correlation is significant at the 0.01 level (1-tailed) and $N = 1063$

Source: Based on authors' study

4.0 Conclusions

The final results of the present research survey has been summarized and presented in Table 6. It may be clearly seen that the four bundles of HPWs (PTM_01, PTM_02, PTM_03 & LND_01) and five bundles of EAMs (OC_01, JS_01, JS_02, MR_01 & MR_02) are extensively practiced in the current organization and employee perceptions are also high. Three bundles of HPWs best practices (LND_02, CSE_01 & CSE_02) along with one bundle for EAMs (OC_02) had ‘Neutral’ responses. These require further introspection and investigation to arrive at nay final conclusions. HPWs best practices not being followed in the organization is nil and also the EAMs bundle having very low perception is nil. This was a good sign that the leadership training conducted within the organization was effective and had contributed immensely to the overall employee performance enhancement and organizational development. The HMLR technique used in the present paper successfully modeled the linear relationship of the independent variables with the dependent variables. The summary of the indications of the effects of HPWs best practices on EAMs is shown in Table 7. The details of predictors are also summarized as significant and non-significant based on the hypotheses tested using HMLR.

Table 6: Comparison of HPWs & EAMs Bundles

HPWs Usage			EAMs Perception		
Extensively	Neutral	Rarely	High	No	Low
PTM_01	LND_02	NIL	OC_01	OC_02	NIL
PTM_02	CSE_01		JS_01		
PTM_03	CSE_02		JS_02		
LND_01			MR_01		
			MR_02		

Source: Based on authors’ study

Table 7: Summary of Hypotheses Tested & Indications of Effects of HPWs on EAMs

Hypothesis-I (Partially Supported)	I-01	Supported	EAMs	HPWs			
	I-02	Supported		OC	PTM	LND	CSE
	I-03	Not Supported	JS	●	●	○	0.445
			MR	●	●	○	0.581
Hypothesis-II (Partially Supported)	II-01	Not Supported	● Significant Predictor ○ Non-Significant Predictor				
	II-02	Supported					
	II-03	Not Supported					
Hypothesis-III (Partially Supported)	III-01	Not Supported					
	III-02	Supported					
	III-03	Not Supported					

Source: Based on authors’ study

5.0 Recommendations

The present research disclosure had opened up many new boulevards and avenues in connection to successfully establishing HPWs within any large company. It has been indicated that HPWs is a strategic implementation system that sticks to a ‘Bigger’ strategic system and is not merely about adopting the right HRM policies and practices. It involves a strong alignment of the entire human resources, policies, and practices within the company. Though there is not a single best approach for the same and thus each organization should customize its system to fulfill its own unique needs.

The present paper where all possible facets of HPWs best practices has been explored and bundled together into three main pillars is a unique study in its way. Also, realizing corporate performance on employee attitudinal measures considering three major facets is an innovative and naive idea considered in the present survey analysis. It was established that employee attitudinal levels can be enhanced leading to higher level of corporate performance, which is always the key aim of any business organization. The study also contributed to the field of general administration in the target organization categorized under ‘Heavy Industry’ sector. The present study helped unbox the “Black Box” of complex interrelationship between the employee attitudinal measures and organizational performance by established the proper linkages between HPWs and EAMs. It is expected that present study will contribute and guide any corporate on what really best-fit the organization including the corrective measures that can be adopted to attain a ‘World Class’ status company. Based on the outcomes of the present work, major recommendations are made for the successful implementation of the HPWs framework in any organization as shown in Figure 3:

Figure 3: HPWS Integration Strategy Framework



Source: Based on Authors' study

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Annexure

- Instruction for Questionnaire Set – I:** Mark your response on each question/statement by rating on a scale of 1 – 5, which best describes your organization, where: 1 - Not At All Agree (Strongly Disagree); 2 - Very Less Agree; 3 - Somewhat Agree; 4 - Highly Agree; 5 - Completely Agree (Strongly Agree)
- Instruction for Questionnaire Set – II:** Please indicate the numeral value as per your perception against each question

Questionnaire Set - I (Survey of HPWs Variable)

a). Performance & Talent Management (PTM) Questionnaire						
1	When staffing new positions organization use external resources	External Resources			Internal Resources	
		1	2	3	4	5
2	Job descriptions are	Flexible and Adaptive			Fixed and Implicit	
		1	2	3	4	5
3	Advancement within the organization can be achieved through	One Way (Single Ladder)			Multiple Avenues	
		1	2	3	4	5
4	The organization's pay structure for employees in similar positions at the competition is	High			Low	
		1	2	3	4	5

5	Performance appraisal system (including skill-mapping and skill-matrix) is	Scientific			Incognizant	
		1	2	3	4	5
6	The benefits package for employees in the company is	Flexible			Standard	
		1	2	3	4	5
7	When appraising employee performance, the criteria for the appraisal is	Behaviorally Oriented			Result Oriented	
		1	2	3	4	5
8	The level of employee participation in the appraisal process is	High			Low	
		1	2	3	4	5
9	Does the appraisal emphasize performance	Individually			In a Group	
		1	2	3	4	5
10	Overall internal talent mobility (i.e. moving people among jobs, projects and geographies) is	Adequate			Inadequate	
		1	2	3	4	5
11	Rewards and recognition (RandR) practice is	Tailored			Verboten	
		1	2	3	4	5
12	Job security in the company is	High			Low	
		1	2	3	4	5
b). Learning & Development (LND) Questionnaire						
1	The emphasis of an employee training program is	Long Term			Short Term	
		1	2	3	4	5
2	The training and development received is	Broad			Task-Specific	
		1	2	3	4	5
3	Training and development received is	Systematic			Not Planned	
		1	2	3	4	5
4	Employee participation in formulating training and development needs is	High			Low	
		1	2	3	4	5
5	Training and development are oriented toward	Group			Individual	
		1	2	3	4	5
6	Industry 4.0 tools (e.g. IoT, Robotics, Cognitive, AI-ML and other related disruptive IT tools) in the company are	Extensively Used			Not Used	
		1	2	3	4	5
7	Leaders to make an employee dream big share	Success Stories			Do Not Celebrate Success	
		1	2	3	4	5
8	Individuals implementing successful innovative projects receive	Additional Rewards			Low Attention	
		1	2	3	4	5
9	Employees are inspired to push their boundaries to think	“Out-of-Box”			Dull	
		1	2	3	4	5
10	Organizations can better tackle futuristic business and workforce challenges because C-Suite (Senior-level) collaborations is	Favored			Not Allowed	
		1	2	3	4	5
11	Safety, Health and Environment (SHE) issues within the organization is	Priority			Not-a-Priority	
		1	2	3	4	5

c). Corporate & Social Entrepreneurship (CSE) Questionnaire						
1	Frontline employees displaying emotional resilience and flexibility during customer interactions (Go-with-Flow Type) are	Properly Trained			Ignored	
		1	2	3	4	5
2	Social skills as a part of 'Emotional Intelligence' (i.e. to build and manage relationships beyond organization) among employees is	Encouraged			Discouraged	
		1	2	3	4	5
		1	2	3	4	5
3	Organizational policy on CSR, Diversity, New Ethos and Values-for-Work is	Effective			Not Effective	
		1	2	3	4	5
4	Financial, cultural and climate impacts on social issues are not given due importance and hence never measured	Important and Measured			Not Measured	
		1	2	3	4	5
5	Small and experimental projects even realizing that some will undoubtedly fail are	Supported			Verboten	
		1	2	3	4	5
		1	2	3	4	5
6	Collective entrepreneurship within the organization is	Encouraged			Discouraged	
		1	2	3	4	5
7	Harmonizing the economy as part of the strategy for establishing Eco-efficiency is	Priority			Not-a-Priority	
		1	2	3	4	5

Questionnaire Set – II (Survey of EAMs Variable)

a). Organizational Commitment (OC) Questionnaire						
		Strongly Disagree			Strongly Agree	
		1	2	3	4	5
1	I put efforts beyond expectations in my work					
2	My organization is a 'Great-Place-To-Work'					
3	I am not loyal to the organization					
4	My personal values and organizational values are very similar					
5	I am proud to share socially that I am part of this organization					
6	I am extremely glad that I chose this department/organization to work for over others					
7	Often, it is difficult to agree with the organizational policies on important matters relating to employees					
8	I am happy to work in the organization					
9	For me, this is the best of all possible departments/organizations for which to work.					
10	Deciding to work for this department/organization was a definite mistake on my part.					

b). Job Satisfaction (JS) Questionnaire						
1	I am paid fairly for the work I do					
2	There are fewer chances of promotion in my job					
3	I am not satisfied with the benefits provided by the organization					
4	I receive recognition for doing a good job					
5	The organization has established a transparent communications system among employees					
6	My supervisor is mostly unfair to me					
7	There is no red tapeism to block the efforts to perform a good job					
8	The goals of this organization are not clear to me					
9	People get ahead fast as they do in other places					
10	There is a 'Sense-of-Pride' in my job and salary I draw from the organization					

c). Motivation and Retention (MR) Questionnaire						
1	I am interested in the work which is assigned to me					
2	There is an appreciation for job well done					
3	The organization has a high job security					
4	Working conditions within the organization are satisfactory					
5	Promotions and growth in the company are abreast					
6	I am emotionally attached to the organization					
7	Employees have high personal loyalty					
8	My managers know my requirements					
9	Generally, superiors are sympathetic to my personal problems					
10	I intend to leave the organization					

Impact of RBI Repo Rate on Select Borrowers in India

Venu Kesireddy* and Kushini Prasad**

ABSTRACT

The RBI focuses on formulating and enforcing a sound monetary policy that has clearly defined goals, objectives, and tools to be put into action. The repo rate is one of the most important tools that the Reserve Bank of India (RBI) uses in their monetary and credit policy, and this paper makes an attempt to study it. As a mechanism for managing liquidity, it allows the RBI to either increase or decrease the repo rate in order to maintain stability in the economy. This helps combat inflationary movements that may have led to a sudden increase in the prices of goods and services that people use on a day-to-day basis and slows down the investment-related activities that are taking place in the country. On the other hand, when there is an economic downturn, the Reserve Bank of India lowers the repo rate. This, in turn, causes banks to lower the interest rates they charge on loans to the general public.

Keywords: Repo rate; Monetary and credit policy; Control inflation; Basis points; Monetary policy committee.

1.0 Introduction

The Reserve Bank of India (also known as RBI) is India's central bank. RBI carefully monitors the state of the Indian economy in order to arrive at a conclusion regarding the appropriate level for the repo rate. The rate at which the Reserve Bank of India (RBI) provides commercial banks with credit in exchange for their treasury bills is known as the Repo rate. The six-person Monetary Policy Committee is responsible for determining the repo rate. This committee meets twice a month to discuss whether the repo rate should be increased, decreased, or kept the same. In May 2022, the RBI raised the repo rate to 4.4%, and then they raised it again in June 2022 to 4.9% by increasing it by another 50 basis points. The reverse repo rate in the country is currently sitting at 4.9% as of right now. The interest rate that your bank charges you to borrow money through loans is directly influenced by the repo rate. Let's get into the nitty-gritty of what the repo rate is and how it impacts the interest rate that regular people pay on loans.

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1.1 Objectives of the study

- To study and analyze the effect of changes in Repo rate on borrowers with reference to personal loans, auto loans, home loans and education loan.
- To offer conclusions and suggestions.

1.2 Data and methodology

The study is based mostly on secondary data from official sources. Information regarding the changes in Repo rate had been obtained from official website of RBI and publication from newspapers and journals

2.0 Review of Literature

There have been a lot of studies that have been looked at, and the ones that have been looked at the most closely are the works that are closely related to the shift in the interest rates that are used in the Indian monetary policy. Prof. Pallavi Ingal (2012) According to the findings of her research, which she presented, “Despite RBI’s desperate attempt to bring the monster of inflation under control, it connotes a good sign in controlling inflation.” The Reserve Bank of India (RBI) is continually working to raise interest rates, which will most likely slow economic expansion in the near term but is unquestionably a step that will assist in correcting numerous anomalies that are currently afflicting the economy. As a result, the Indian industry at the macro level helps an economy to get back on the growth track, which enables it to expand at the rate that is most consistent with its true potential.

Nitya Dawra (2014) In her study, titled “An Empirical Analysis,” she demonstrated that the RBI’s repo rate and reverse repo rate are monetary policy instruments that can be used to control the money supply in the country. Both of these rates were discussed in her case study. The Reserve Bank of India (RBI) is a reliable borrower for money, so financial institutions have no qualms about giving it to them. The seminal work of Taylor (1993) the monetary policy reaction function has been discovered. It states that the nominal interest rate will be increased by central bankers if inflation is higher than the target (referred to as an inflation gap) and/or output is higher than the potential (referred to as an output gap), and vice versa.. Selim (2011) Inflation-targeting countries take into account the exchange rate as they construct their monetary policy in order to account for the impact that the exchange rate has on the decision-making process regarding monetary policy.

3.0 Borrowing of Repo Rate

In the same way that a borrower is required to pay interest on the loan they receive from their bank, banks are also required to pay interest on the money they borrow. The Reserve Bank of India (RBI) extends loans to any and all commercial banks in exchange for the sale of eligible securities like treasury bills. When faced with a shortage of cash and a demand for liquidity in order to carry out their regular banking operations, banks typically

turn to borrowing money in the form of loans. The rate at which commercial banks are required to make interest payments to the Reserve Bank of India is referred to as the Repo Rate. Repo is an abbreviation that can refer to either the Repurchase Option or the Repurchase Agreement.

RBI Hikes Repo Rate - How Will It Impact You?

The monetary policy panel of the Reserve Bank of India raised the key lending rate, which is also known as the Repo Rate and interest rates, by 25 basis points to 6.50% in order to combat inflation for the fourth time in a row. This move brings India in line with a long line of financial institutions and central banks that have taken similar actions in order to combat the effects of a rising dollar and rising costs.

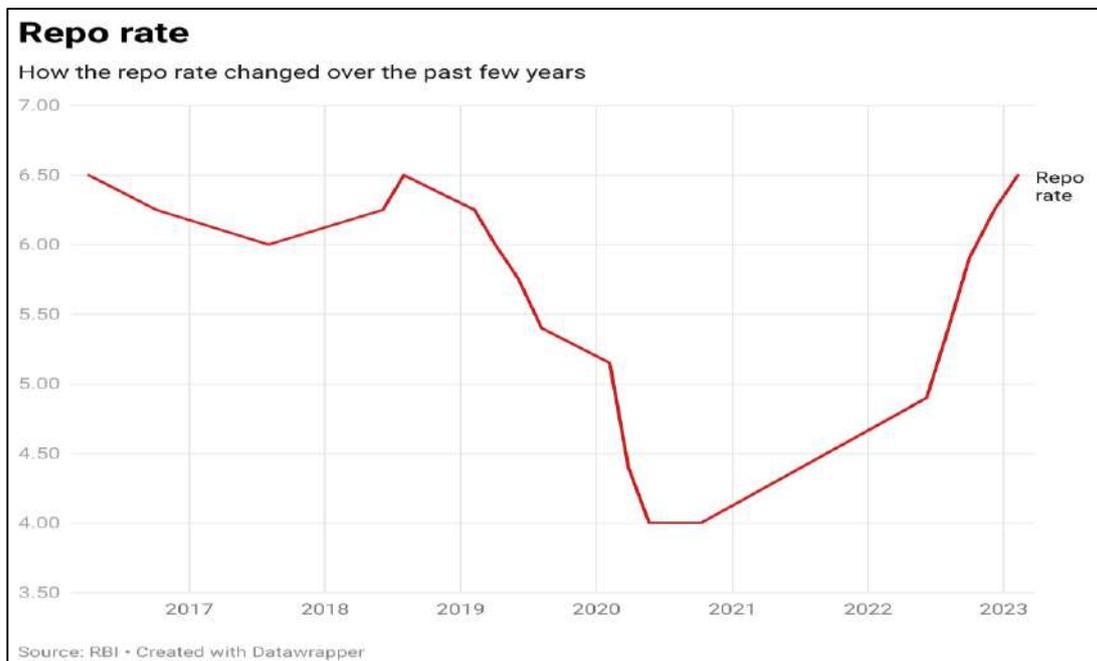
Five of the six members of the monetary policy committee (MPC) voted in favor of the increase in the reserve requirement ratio. The MPC is made up of three members from the Reserve Bank of India (RBI) and three members from outside the RBI.

Table 1: RBI Repo Rate as of 08 February 2023

Repo Rate	6.50%
Reverse Repo Rate	3.35%
Bank Rate	6.50%
Marginal Standing Facility Rate	6.50%

Source: <https://www.rbi.org.in>

Figure 1: RBI Repo Rate Changed Over the Past Few Years



Listed below is the Repo Rate increase history of 2022:

- On December 7, 2022, the Repo Rate was increased by the Reserve Bank of India (RBI) by 35 basis points, bringing the rate up to 6.25% and marking the fourth hike or increase in the Repo Rate in 2022.
- Earlier today, the Reserve Bank of India (RBI) announced that they will be increasing the Repo Rate by 50 basis points to 5.9% on September 30, 2022.
- Earlier in the day on August 05, 2022, the Federal Reserve Bank had also increased the Repo Rate to 5.4%.
- Following the announcement, the Reverse Repo Rate remained unchanged at 3.35%, whereas the most recent information regarding the RBI Repo Rate indicated that the new repo rate is currently 6.50%.

In this article, which is based on recent news from the Reserve Bank of India (RBI), we have discussed how an increase in the Repo-Rate by the RBI will have an effect on the Economic Growth of the country, as well as its influence on Inflation, as well as its effect on Loans, EMIs, Deposits, Fixed Deposit Rates, Mutual Funds, Savings, and Consumer Spending, etc.

The change in repo rate in India since October 2005 can be summed up as follows:

Table 2: RBI Repo Rate Cut History 2023 -2005 (Current and Past Repo Rates)

Effective Rate	Repo Rate
8 February 2023	6.50%
7 December 2022	6.25%
30 September 2022	5.90%
5 August 2022	5.40%
8 June 2022	4.90%
May 2022	4.40%
09 Oct 2020	4.00%
06 Aug 2020	4.00%
22 May 2020	4.00%
27 March 2020	4.40%
6 February 2020	5.15%
07 August, 2019	5.40%
06 June, 2019	5.75%
04 April, 2019	6.00%
07 February, 2019	6.25%
01 August, 2018	6.50%
06 June, 2018	6.25%
02 August, 2017	6.00%
04 October, 2016	6.25%
05 April, 2016	6.50%
29 September, 2015	6.75%

02 June, 2015	7.25%
04 March, 2015	7.50%
15 January, 2015	7.75%
28 January, 2014	8.00%
29 October, 2013	7.75%
20 September, 2013	7.50%
03 May, 2013	7.25%
17 March, 2011	6.75%
25 January, 2011	6.50%
02 November, 2010	6.25%
16 September, 2010	6.00%
27 July, 2010	5.75%
02 July, 2010	5.50%
20 April, 2010	5.25%
19 March, 2010	5.00%
21 April, 2009	4.75%
05 March, 2009	5.00%
05 January, 2009	5.50%
08 December, 2008	6.50%
03 November, 2008	7.50%
20 October, 2008	8.00%
30 July, 2008	9.00%
25 June, 2008	8.50%
12 June, 2008	8.00%
30 March, 2007	7.75%
31 January, 2007	7.50%
30 October, 2006	7.25%
25 July, 2006	7.00%
26 October, 2005	6.25%

Source: <https://www.rbi.org.in>

3.1 RBI repo rate on personal loans

The rate at which the Reserve Bank of India (also known as the RBI) lends money to commercial banks is known as the repo rate. The term “Repo rate” refers to the “Repurchase Rate.” The Repo rate is the interest rate at which the Reserve Bank of India (RBI) provides commercial banks with credit in exchange for collateral such as government securities. According to the terms of the agreement, these collaterals will be repurchased at some point in the future at a predetermined price. The CRR refers to the portion of deposits that are made to the RBI by commercial banks.

A reduction in the Repo rate will bring about a reduction in the cost of borrowing money for both commercial banks and individual borrowers. The interest rate at which financial institutions provide credit, such as personal loans, mortgage loans, and so on, is

referred to as the cost of credit. Alternately, the interest rates on loans will be lowered. This will also result in a decrease in the Cash Reserve Ratio (CRR), which will result in an increase in the amount of credit that is available to individuals.

3.2 RBI has increased the repo rate to 4.40%

The Reserve Bank of India (RBI) increased the benchmark lending rate, also known as the repo rate, by forty basis points (bps) on Wednesday, May 5, 2022, bringing it up to 4.40%. Since August 2018, this is the first hike since then. The unexpected increase in the repo rate marks the very first time that the Monetary Policy Committee (MPC) has done something like this. Inflation, which had been consistently higher than the target of 6% for the previous three months, required a hike of this magnitude in order to be brought under control.

The decision made by the RBI will have an effect on individuals who have taken out loans to purchase homes or vehicles. In order to retrieve Rs.87,000 crore from the banking system, the MPC, which is led by the Governor of the RBI and is named Shaktikanta Das, increased the required deposit amounts that banks must keep as a cash reserve by increasing it by 50 basis points to 4.5%. On May 21st, the increased CRR will become fully operational.

Given this, it is expected that lenders will pass on this rate cut to borrowers. As a result, if you have borrowed loans for which the interest is calculated on a floating basis, your payable EMI is likely to reduce. That said, although the reduced repo rate is expected to lower the interest charged by lenders, the actual quantum of change in the interest rate will depend on a number of other factors such as the lender's operating costs and the cost of deposits, among other things.

Thus, if you are looking to borrow a personal loan, you could benefit from a reduced interest rate due to the Reserve Bank of India's recent rate cut.

Example, if the repo rate is 5% and the loan amount that the bank has availed from the RBI is Rs. 1000, then the interest paid out by the bank on the same would be Rs. 50. Therefore, a lower repo rate indicates lower interest rate charged on loans availed from these banks by regular customers.

Repo Rate cuts influence the lending rate or rate of interest on all mortgages such as personal loans, car loans, housing loans, etc. This reduction in the rate of interest is expected to increase demand for these products. A reduction in the Cash Reserve Ratio would enhance the availability of funds and bring in more liquidity to the banking system. This will alternately affect the economy as well, which is one of the reasons why RBI introduces such a change.

However, it is important to note that repo rate cut would lead to a reduction in the rate of interest only if the loan has been offered on a floating interest rate basis. If the personal loan has been offered on a fixed interest rate basis, then the interest rates would not be affected by any changes in the repo rate. Therefore, repo rate cuts will benefit new personal loan borrowers when the banks implement the changes but existing borrowers who have opted for the fixed rate of interest would not benefit from the same.

The other side of the coin is an increase in repo rate. When the Reserve Bank of India (RBI) decides to raise the repo rate, the cost that commercial banks must pay to borrow money from the RBI also rises. Another option would be for these banks to raise the interest rates on loans that are made available to the general public. This only applies to loans that are made available with a variable interest rate.

The CRR cut causes a long-term impact on personal loan products. The interest rates are lowered with repo rate cuts. The cost of borrowing would reduce drastically for both corporates as well as individual customers. With a reduction in lending rates, personal loans will become more affordable for borrowers. However, it is also essential to have a moderate transmission in the rate of growth of credit. Otherwise, the overall effect of the repo rate cut will stay neutral¹.

3.3 Affect of home loan EMIs increase repo rate

On February 8, 2023, the benchmark repo rate was increased by 25 basis points (bps) by the Reserve Bank of India (RBI). Since May 2022, the Reserve Bank of India (RBI) has increased the interest rate a total of six times, bringing the total quantum of the hike to 250 basis points (bps). This increase was primarily motivated by external factors, such as the conflict between Russia and Ukraine. Meetings of the Monetary Policy Committee (MPC) are attended by three RBI officials and three members of the public who have been appointed by the central government.

This is the first MPC meeting since the presentation of the Union Budget by finance minister Nirmala Sitharaman in Parliament a week earlier on February 1, 2023. With the hike in repo rate, because banks may choose to pass on the increase in rates of interest to customers, existing home loans with variable rates of interest are likely to become more expensive. This will result in an increase in the equated monthly instalments (EMIs) for home loans taken out by buyers.

According to experts, inflation should moderate in the long run which would have a mellowing effect on home loan installments gradually this year.

So, what will the hike in repo rate entail for the customer?

3.4 How much Will EMIs increase

The repo rate has a one-to-one correlation with the interest rates that lenders provide for loans. As a result, an increase in the repo rate will result in an increase in the cost of borrowing, and vice versa. “The rate hike of 25 basis points that took place today will make EMIs approximately 2-4 percent more expensive. According to V Swaminathan, executive chairman of Andromeda Sales and Aapnapaisa.com, both of which are companies that distribute loans, borrowers will be required to “either shell out additional money to repay their loans or will be required to extend the tenure.”

“Taking into account the most recent hike of 25 basis points, the equated monthly installment payment (EMI) for a home loan with a principal amount of Rs 70 lakh and a rate of 9.25 percent was Rs 64,111. However, after taking into account the 25 basis points, the

interest rate rises to 9.50 percent, which results in an increase in the EMI to Rs 65,249. The person who takes out such a loan will be required to make an additional payment of Rs 1,138 every single month. However, over the course of the past three quarters, there has been a rise of 250 basis points in the repo rate. Therefore, the monthly installment payment (EMI) for a home loan of Rs 70 lakh taken out in May 2022 at a rate of seven percent was Rs 54,271. When we take into account the rate increase of 250 basis points that has occurred since May, the interest rate rises to 9.50 percent, which brings the EMI up to Rs 65,249. According to Swaminathan, the borrower of such a loan will be required to make an additional payment of Rs 10,978 every single month.

Says Adhil Shetty, CEO, BankBazaar, a financial services website: “Let us take a loan of Rs 50 lakh, with a tenure of 15 years. The original interest rate in May 2022 was seven per cent after which we have seen six rate hikes. For the above loan, the EMI was Rs 44,941 at a seven per cent interest rate and before the rate hike today, it was Rs 51,460. After the 25 basis points rate hike today, the EMI will go up to Rs 51,211. Also, if someone wants to increase the tenure and keep the EMI the same, after today’s hike, the tenure will become 270 months, instead of 180 months when the rate of interest was seven per cent. Before this rate hike, the tenure had to be 254 months to keep the EMI the same.”

Says Chenthil Iyer, founder and chief strategist, Horus Financial Consultants: “If a loan of Rs 30 lakh currently has an interest rate of 8.5 per cent and tenure of 20 years, then EMI would be Rs 26,034.7. With the increase in repo rate of 25 bps, the EMI would increase to Rs 26,511.32, an increase of approximately Rs 500. Alternatively, if someone decides to keep the EMI same, the tenure increases by one year.”

When banks increase benchmark lending rates for home loans, you will be left with two options- to continue with the ongoing repayment schedule or switch to a higher tenure of the loan.

What Should You Do: According to financial planners, the only way to control the rising costs of borrowing is to make pre-payments. It is essential that you do not rush into selling off any of your investments or making any prepayments. Instead, you could work toward it by making plans. You have a number of options available to you, and the one that you choose should be based on how your finances currently stand.

“For instance, if you pre-pay five percent of the loan balance every year, a loan with a 20-year term can be repaid in 12 years rather than the full 20 years. In the alternative, you might have to pay an additional five to ten percent on top of your regular EMI each month. You could also make an additional two to five payments per year, or you could make an additional payment every three months. According to Shetty, any and all of these things would make it easier for you to manage your loan burden.

Moreover, he explains, what matters is the timeframe in which you intend to repay the loan. “Let’s say, for instance, that you planned to repay a loan with a term of twenty years in ten years, but the rate increases extended your repayment period to twenty-five years. In this particular scenario, you should make it a priority to pay off at least ten percent of the loan over the course of the next ten years by making a combination of EMIs and prepayments.

This will ensure that you remain on track to achieve your goal. It is essential that you carry out these actions in a well-organized and planned manner, as this will ensure that your financial resources are not put under unnecessary strain while simultaneously allowing you to reduce the amount that you owe on your loan,” adds Shetty. Iyer suggests that increasing the EMI is always the right thing to do. “Only in extreme situations where the revised EMI is unaffordable, the tenure may be increased,” he adds².

3.5 RBI repo rate hike will affect on auto loans

Planning to book your dream car? But have you ever thought of how the RBI repo rate hike affects your auto loan? It is crucial to understand the relationship between the two to make an informed choice. However, before delving deep into the concept, let us comprehend some vital financial jargon. It includes concepts related to the repo rate, fixed rate, and floating rate. Eventually, it will help you to understand how the central bank’s repo rate can alter your auto loans.

Moreover, the number of financial institutions offering auto loans is expanding along with the demand for vehicle loans. In such a context, it is essential to comprehend how your auto loan is affected by the RBI repo rate hike. Thus, you can plan a wise monthly budget by adjusting the calculations. When the repo rate rises, banks are bound to increase their lending rate to the customers. This is because these commercial banks get a loan from the RBI at a higher repo rate. Consequently, the interest rate for auto loans also rises. But it varies depending on the interest rate you select. A cursory knowledge of two types of interest rates is imperative to comprehend how the RBI repo rate hike impacts your auto loan EMI. Hence, let us leaf through the concepts of fixed and floating interest rates.

What is a fixed rate, and how does the RBI repo rate hike affect the fixed rate?

If your auto loan has a fixed rate, the interest rate stays the same throughout the loan period. It implies that the interest rate stays the same, notwithstanding the changes in the RBI repo rate or bank lending rate. Accordingly, a hike or dip in the RBI repo rate will not affect auto loans with fixed rates. Hence, the fixed interest rate enables you to manage your monthly budget precisely.

What is the floating rate, and how does the RBI repo rate hike affect the floating rate? The scenario differs when your auto loan has a floating interest rate. The floating interest rate varies with the market changes. The current RBI repo rate decides the basis of floating rate interest. Therefore, the floating rate interest could rise in response to an increase in the RBI interest rate. Also, if the repo rate falls, so will the floating interest rate. Accordingly, a rise in the floating interest rate will increase your auto loan EMI amount. Consequently, you need to make amends to your monthly budget³.

So, the next time you hear about the RBI repo rate increase, pay close attention. In light of the current inflationary trend, the repo rate hike is a certainty. As a ripple effect, auto loans at a floating rate will get costlier. Further, the repo rate hike will affect the new vehicle buyers rather than the existing buyers. Hence, it is better not to delay applying for your auto loans.

3.6 Affect of recent repo rate increase on education loan

In India, amidst the ongoing inflation and economic crisis, accumulating enough funds to bear the cost of abroad education is still a milestone for many students and their families. Parents and students servicing education loans may have a tough time ahead as RBI had increased the repo rate thrice previously and now it is further increased by 0.5% in September 2022 for the fourth time in a row. This surge will cause a hike in the rate of interest for education loans also, and the students who were planning to go abroad for higher studies by taking education loans will now have to take the hit of this hike. As the interest rate for education loans will be increased subsequently.

Most of the banks and NBFCs have already increased their benchmark rates post the 0.4 percent hike by the RBI last month and now another rate hike can be expected. Already, the cost of education, both domestically and internationally, is rising. Now, even the cost of financing education is on the way up. The new education loan interest rates may increase by 1.25 percent to 1.5 percent or even higher, from their existing values, depending on the borrower's profile, lending institution, the course, and the institution where the course is being conducted. You can get in touch with the Financial Officers of WeMakeScholars and get your education loan profile analyzed to know the lowest interest rate that can be offered to you on your education loan according to your profile.

3.7 How to get a cheap education loan

As per the study by NCES, the cost of higher education, whether in India or overseas, has been rising, and education loans have become crucial for study-abroad aspirants. With the support of education loans, students feel handy to fulfill their dream of studying abroad. While there are many lenders ready to fund your education abroad, ranging from public banks, private banks, and NBFCs to fintech companies, it is crucial to find out which is the most suitable lender for your education loan.

3.8 Indian lenders vs foreign lenders

Indian lenders are Public and Private banks in India that fund Indian students to pursue their studies abroad while foreign lenders are those foreign institutions that offer funds to international students to come and study in their country. Here the catch is that in the case of foreign lenders, you will have to repay the education loan in the same currency, in which you have borrowed from them, say suppose the dollar. But, since the price of dollars is shooting up compared to the rupee. You will have to repay more money as interest if you take an education loan from foreign lenders in the USA. Therefore, we suggest students take an education loan from Indian lenders only. We are partnered with 14+ public and private banks in India and can connect you directly to them after you fill out and submit your loan eligibility form.

3.9 The interest rate offered by various lenders

If you take a collateralized education loan from a public bank then the average interest rate starts at around 9.0 percent, while, in a private bank, the interest rate starts from

around 12 percent. So clearly public banks are a good option when you have collateral to pledge, but when you do not have collateral and loan processing time is your deciding factor then you must process your loan with We Make Scholars and get the best deal at the lowest rate of interest at the earliest.

3.10 Lender's expectation in exchange for the loan

As mentioned earlier there are two options to get a secured loan that is, immovable property or liquid security, the type of security you pledge for a collateralized loan also plays an important role as their methods of valuation are different and that could alter your decision. So lenders' expectations about collateral should also be considered before choosing an education loan⁴.

4.0 Conclusion

A reduction in the Repo rate will bring about a reduction in the cost of borrowing money for both commercial banks and individual borrowers. The interest rate at which financial institutions provide credit, such as personal loans, mortgage loans, and so on, is referred to as the cost of credit. Alternatively, the interest rates on loans will be lowered. This will also lead to a reduction in CRR (Cash Reserve Ratio) which would increase the availability of credit to individuals.

When banks increase benchmark lending rates for home loans, you will be left with two options- to continue with the ongoing repayment schedule or switch to a higher tenure of the loan. A cursory knowledge of two types of interest rates is imperative to comprehend how the RBI repo rate hike impacts your auto loan EMI. Hence, let us leaf through the concepts of fixed and floating interest rates It is suggested to students take an education loan from Indian lenders only. We are partnered with 14+ public and private banks in India and can connect you directly to them after you fill out and submit your loan eligibility form.

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A Study about Emotions in Marketing: A Conceptual Theory

Kamminana Siddhartha and Kamminana Pravalika***

ABSTRACT

This article evaluates the existing theoretical position of emotions in marketing to investigate how well emotions of people impact the marketing propensity. Five marketing perspectives for emotions are discussed, together with the theoretical premises and traits of four significant psychological theories of emotions. The qualities of emotions in customer engagement are described and contrasted with the psychological view of emotions. The essay concludes with four theoretical recommendations for the future development of an emotion-based marketing theory.

Keywords: *Consumption emotion; Emotion theory; Marketing emotion; Advertising emotion; Psychology.*

1.0 Introduction

A genuine area of scientific investigation in the realm of marketing has been made possible by the research and theoretical advancements over the last two decades in the domain of emotions. Many resources have been used to research the function of emotions in marketing, drawing on psychological theories of emotions. The research of emotions in marketing has extensively relied on reference disciplines and has absorbed theories from other fields, most notably psychology, but has typically not integrated elements of marketing emotions to improve such theories. By exposing the theoretical assumptions behind theories of emotions drawn from psychology and outlining the features of emotions specific to marketing, this research aims to offer suggestions for creating a suitable theories and models of emotions in marketing. The four primary theories of emotions taken from the past research are assessed in the part that follows using specific theoretical claims and commercial success as criteria. After that, five perspectives of emotions in marketing are used to derive characteristics of emotions in marketing. Theoretical suggestions for creating a theory of emotions in marketing are made towards the end.

1.1 Objectives of this study

This research papers emphasizes upon the emotions in marketing in a conceptual theory. The objectives include the following:

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- To understand emotions in marketing
- To evaluate the different marketing theories and studies
- To suggest the suitable emotions in the marketing as it has not been discussed much in the past in the field of marketing.

2.0 Review of Literature

Though there hasn't been much articles or research on this topic there are very few studies that has been used for the review of literature and there has been studies that are mentioned below to make a proposition in new ways to the theories and studies based on old methodologies. The same has been updated and mentioned in this article.

3.0 Important Emotion Theories Based on Psychology

Two criteria are used to assess the four main theories of emotions that have been generated from psychological literature. Theoretical claims make clear the conceptual, empirical, or intuitive claims that are made in support of an argument (Murray & Evers, 1989). A theory's success or acceptability shows that it has endured the age of time and is widely accepted (Peter, 1992).

3.1 Differential emotions theory

Propositions: Izard (1977) bases his presentation of this theory on a number of important presumptions. First, the individual motivational system is made up of 10 basic emotions (2 positive, 7 negative, and 1 neutral). Second, essential emotions are necessary for human life. Third, these feelings communicate with one another.

Marketing attainment: This idea was extensively used by Oliver, Westbrook, and others to study post-purchase feelings. Here, it was shown that a far more straightforward two- to three-dimensional representation—primarily positive vs. negative—was adequate to comprehend post-purchase contentment (Westbrook, 1987).

Propositions: This theory offers a structural model outlining how emotions interact with one another. The following are the main postulates: (Plutchik, 1980). There are initially 8 main emotions (2 positive, 4 negative, and 2 neutral). The core emotions are the building blocks for all other emotions. Second, emotions help us deal with survival-related challenges in an appropriate way. Third, main emotions are observable in several ways as polar opposing pairs.

Marketing achievement: This hypothesis offers a sophisticated explanation for several kinds of advertisement emotions (Havlena et al., 1989). Although it's postulated circular structure of emotions is difficult to associate with the satisfaction-dissatisfaction dimensions post-purchase reactions, its responsibility for consuming emotions is equivocal (Havlena & Holbrook, 1986).

3.2 PAD model of affect

Propositions: The three aspects of pleasure-displeasure, arousal-non-arousal, and dominance-submissiveness are represented by the acronym PAD (Russell & Mehrabian, 1977). These are how its main ideas are derived. Initially, all emotional states are described by the PAD dimensions. Secondly, emotional states encompass emotions, feelings, as well as additional ideas that have to do with feelings. Finally, the bipolar nature of the PAD dimensions implies that the potential of unhappiness is eliminated when pleasure is present.

Marketing achievement: This theory has been deemed helpful for evaluating emotions during spending in retail settings and for catching the emotional aspect of the consuming experience (Mathur, & Smith, 1997). (Havlena & Holbrook, 1986). Although Holbrook and Batra (1987) reported favorable findings, and Havlena et al. (1989) presented the opposing position, it is unclear if it applies to advertising emotions.

3.3 PANAS

Propositions: The Positive and Negative Affect Schedule is known as PANAS. The research by Watson et al. make clear the main ideas of this paradigm (Watson & Clark, 1992). Initially, the two main emotional aspects are positive and negative impacts. Second, a mood scale is intended to be presented by this hypothesis. Finally, both good and negative effects exist independently of one another.

Marketing achievement: The satisfaction/dissatisfaction evaluation is represented by a bi-dimensional measure of positive and negative affect provided by this model (Dube & Morgan, 1996). The relationship between the positive and negative affect, as evaluated by PANAS, and post-purchase behaviours (Mooradian & Olver, 1997), as well as negative affect in advertising, has been established (Huang, 1997).

4.0 Important Emotional Marketing Concepts

The properties of emotions in a marketing setting should be taken into account for the creation of a more thorough theory. Such traits would be a reflection of the social context in which they evolved and were used (Murray et. al 1995). The following examination of five empirical marketing perspectives focuses on the traits of marketing emotions.

4.1 Consumption Emotions Set (CES) by Richins

To deal with a variety of consumption circumstances, this account aspires for a complete range of consumption emotion indices (Richins, 1997). The set possesses the following features. It does this by measuring 17 consumption emotions (8 negative, 7 positive, and 2 other), which allows for a more precise distinction between good and bad feelings. Second, it excludes vicarious feelings from advertising and solely counts emotions experienced directly from product use. Finally, it optimizes the variations in emotions utilizing a multidimensional scaling approach.

4.2 Ad feeling dimensions by Edell & Burke

This three-dimensional approach was created by Burke & Edell (1989) to assess how consumers feel as opposed to how commercials are described. The following are some of this account's salient features. First, these three dimensions of positive, negative, and warm sensations are the greatest at capturing the emotional reactions of consumers to advertisements. Second, emotions arise through exposure to advertisements rather than prior conditions like moods. Third, opposing emotions can coexist and are independent of one another.

4.3 Ad feeling clusters by Aaker et al.

Aaker et al. (1988) created this complete range ad emotion model with the underlying criteria in attempt to empirically build a list that covers the whole spectrum of sensations expected to be elicited by advertisements. Secondly, it finds 31 feeling clusters, 16 of which are good and 15 of which are negative, that encompass the whole spectrum of individual emotional reactions to advertising. Second, rather of emphasizing the more powerful emotions, it concentrates on the milder sentiments. Lastly, the cluster method presupposes that contrasts across emotional groups should be maximized.

4.4 Affective responses to ad categories by Batra and Holbrook

Affective response categories are provided with this account, which may be used to characterize the advertising collectively (Batra & Holbrook, 1990). It is the formalization of emotive reactions to advertisements (Batra & Ray, 1986), and it primarily exhibits the following features. Initially, 12 emotional reactions elicited by advertising notifications are listed. Second, it discusses emotive reactions to advertisements, such as moods, emotions, and urges. Finally, the aspects of pleasure, excitation, and dominance can be used to categorize emotional reactions.

5.0 Analysis

5.1 Theory-based proposals

The debate that has just taken place inspires a number of ideas for the theory of emotions in marketing to be developed in the future. To emphasize the necessity for an emotion theory in marketing, Table 1 lists the features of emotions in marketing in comparison to the qualities of emotions as stated by psychology. Lastly, suggestions are made for the growth of the theory of emotions in marketing.

The Characteristics: Whether or if emotions are viewed as consumer characteristics or marketing settings will determine the spectrum of emotions that may be expressed as an outcome of marketing. When creating marketing accounts for emotions from the sensory input side (such as by measuring context-specific consumer emotions or ad copy testing), they frequently showed that a variety of emotions were being perceived (e.g., Richins, 1997). Alternatively, when establishing such assessments from the response-side (such as by

measuring consumer satisfaction or emotional reactions to advertisements), just a limited number of emotional characteristics were often found to be necessary (e.g., Oliver, 1993).

The Proposal: Emotions are connected to certain marketing settings (Richins, 1997), yet consumers are inevitably exposed to these scenarios. While doing so in accordance with customer reactions would represent context-free emotions, building categorizing categories for marketing emotions in accordance with specific marketing contexts might capture context-specific emotions. Hence, P1a and P1b are offered to express this viewpoint.

The context-free nature of marketing emotions may be reflected in a marketing account for emotions that captures customer responses, according to proposition 1a.

The context-specific nature of marketing emotions may be captured by a marketing account for emotions based on marketing contexts, according to proposition 1b.

5.2 Emotions' intensity

The Characteristics. Commercial emotions, like buying shoes or feeling the emotions of others through advertisements, are probably less intense than emotions that develop in the context of close, personal interactions (Richins, 1997). Because of their generally moderate intensity, researches of advertising emotions have preferred to refer to them as “feelings” rather than “emotions” (Edell & Burke, 1987).

The Proposal: It is suggested to stop drawing lines between feelings, sensible nature, and emotions while discussing marketing emotions in order to conform to current practise. This low intensity reflects the fact that, contrary to the main psychological theories of emotions, emotions in marketing are rarely observed in their purest form (Plutchik, 1980). The majority of emotional states that are seen are combinations of two or more main emotions (Aaker et al., 1988).

Proposition 2: The relatively low severity of marketing emotions can be reflected by a marketing consideration for emotions that blurs the lines between experiences, moods, and emotions.

5.3 Emotions (Positive/Negative)

The Characteristics: In marketing, it has been discovered that +ve & -ve emotions may exist independently, and the existence of one does not guarantee the absence of the other (Westbrook, 1987). Since positive and negative feelings are essentially the two poles of the identical emotional dimension, several investigators have challenged the single bipolar emotive dimension theory (Nyer, 1997).

Proposal: It is suggested that the idea of happy and negative emotions representing independent emotional dimensions, or dual unipolar emotive dimensions, is relevant for marketing emotions. This perspective benefits from the ability to distinguish between ambivalence and indifference (Westbrook, 1987), avoids the challenge of recognising emotional contrasts (Nyer, 1997), and allows for the co-occurrence of good and negative emotions (Edell & Burke, 1987).

Proposition 3: The co-existing +ve and negative-ve attribute of marketing emotions may be reflected by a marketing consideration for emotions that permits dual unipolar classifications of +ve and -ve emotions.

6.0 Conclusion

Past attempts have relied primarily on reference fields without adding aspects of emotions specific to marketing in hopes of facilitating theoretical connections for the refinement of marketing perspectives of emotions, and this has led to the establishment of emotions as a genuine subject of scientific investigation in marketing. This research offers recommendations for the subsequent advancement of the notion of emotions in marketing by highlighting the propositions and features of emotions as related to psychology and marketing.

7.0 Limitations of the Study

This type of study hasn't been carried upon by authors recently. So review of literature consists of past studies evidences only.

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Stock Market and Speculative Investment Behavior: A Study among Young Investors

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ABSTRACT

The purpose of this paper is to examine users' decision-making mechanism of speculative investment behavior and its sequential consequences in the Young Investors. A survey of 115 people, both with and without expertise in stock market speculation, was used to gather the original data. The proposed model was examined using the partial least squares technique. The results of the analysis conclude that impulsive buying and speculative investment behavior will have a significant impact on negative consequences from the investment.

Keywords: *Stock market; Speculative investment behaviour; Young investors.*

1.0 Introduction

Speculative investment behavior can have a significant influence on stock market investments. Speculative investing refers to buying and selling securities, such as stocks, with the expectation of making profits based on short-term price movements rather than the underlying fundamentals of the company. This type of behavior can impact the stock market in several ways: Increased market volatility: Speculative investments often involve rapid buying and selling of stocks, which can create price volatility in the stock market. Sudden spikes or drops in stock prices driven by speculative trading can lead to increased market volatility, making it difficult for long-term investors to make informed investment decisions based on fundamental analysis.

Market bubbles: Speculative investment behavior can contribute to the formation of market bubbles, which occur when stock prices are driven to unsustainable levels by excessive speculation. When investors engage in speculative buying based on short-term price momentum rather than intrinsic value, it can cause stock prices to become disconnected from the underlying fundamentals of the companies. This can result in overvalued stocks and create a bubble that eventually bursts, leading to significant market corrections and losses for investors. Herd mentality: Speculative investment behavior can also create a herd mentality among investors, where many investors follow the same investment trends or fads without conducting thorough research or analysis. This can lead to a feedback loop, where speculative buying drives stock prices higher, attracting more investors to join the trend, further driving up prices.

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However, when the trend reverses, it can lead to a sharp decline in stock prices as the herd rushes to sell, resulting in potential losses for investors who followed the crowd without considering the underlying fundamentals of the stocks. Misallocation of capital: Speculative investment behavior can result in the misallocation of capital in the stock market. When investors focus on short-term gains and engage in speculative trading, it can divert resources away from long-term investments in fundamentally sound companies with growth potential. This can impact the overall health and efficiency of the stock market, as capital may not be allocated to companies with strong fundamentals and growth prospects, but rather to speculative bets that may not generate sustainable returns in the long run.

Regulatory impact: Speculative investment behavior may also lead to regulatory intervention. Regulators may implement measures such as increased margin requirements, transaction taxes, or trading restrictions to curb excessive speculation and promote market stability. These regulatory interventions can impact the behavior of speculative investors and may have a direct influence on stock market investments.

In conclusion, speculative investment behavior can have significant implications for stock market investments, including increased market volatility, the formation of market bubbles, the influence of herd mentality, misallocation of capital, and regulatory impact. It is important for investors to be aware of speculative investment behavior and consider the underlying fundamentals of companies when making investment decisions to mitigate potential risks associated with excessive speculation in the stock market.

1.1 Understanding speculative investment behavior in the stock market investment

Speculative investment behavior in the stock market refers to buying and selling securities, such as stocks, with the primary goal of making profits based on short-term price movements rather than the underlying fundamentals of the company. Speculative investors often rely on market trends, momentum, or other speculative indicators, rather than conducting thorough fundamental analysis, to make investment decisions. Understanding speculative investment behavior in the stock market involves several key aspects:

Short-term focus: Speculative investors typically have a short-term investment horizon, seeking quick profits from price fluctuations rather than long-term investment strategies. They may engage in frequent buying and selling of stocks, aiming to capitalize on short-term market movements, rather than holding stocks for their long-term value or dividend income.

High risk tolerance: Speculative investing is inherently risky, as it involves making bets on short-term price movements that can be unpredictable and volatile. Speculative investors often have a higher risk tolerance and are willing to take on greater risks in pursuit of higher returns. They may use leverage, options, or other sophisticated investment strategies to amplify their potential gains, but also expose themselves to higher potential losses.

Emotion-driven decisions: Speculative investment behavior can be influenced by emotions, such as greed and fear, as well as market sentiment and hype. Speculative investors

may be swayed by market rumors, news, or social media trends, leading to impulsive investment decisions based on short-term market noise rather than rational analysis.

Herd mentality: Speculative investors may exhibit a herd mentality, where they follow popular investment trends or fads without conducting thorough research or analysis. They may feel pressured to join the crowd or fear missing out on potential gains, leading to a cycle of buying or selling based on the actions of others, rather than independent analysis of the underlying fundamentals.

Lack of focus on fundamentals: Speculative investors may place less emphasis on the underlying fundamentals of companies, such as earnings, valuation, and financial health, and may instead focus on short-term price movements or technical indicators. This can result in investments that are disconnected from the intrinsic value of the companies, and may not be based on a comprehensive assessment of their long-term growth prospects.

Higher trading volume: Speculative investing often involves frequent buying and selling of securities, leading to higher trading volumes in the stock market. This increased trading activity can impact stock prices, liquidity, and market dynamics, contributing to short-term price volatility and potentially distorting market efficiency.

Potential for market disruptions: Speculative investment behavior can sometimes contribute to market disruptions, such as flash crashes or sudden price spikes, especially when large volumes of speculative trades are executed within short periods of time. These disruptions can impact market stability and investor confidence.

It is important to note that speculative investment behavior can be influenced by various factors, and not all short-term trading or momentum-based strategies are speculative in nature. However, understanding the characteristics and risks associated with speculative investment behavior can help investors make informed decisions and manage their investments effectively. It is generally recommended for investors to take a long-term, diversified, and fundamentally-driven approach to investing, considering the underlying fundamentals of companies and their growth prospects, rather than solely relying on speculative strategies.

Speculative investment behavior in the stock market refers to buying and selling stocks based on short-term price movements rather than the underlying fundamentals of the company. This behavior can have a significant impact on the stock market, as noted by several authors.

According to Robert Shiller (2000), speculative bubbles can arise when investors engage in speculative trading and drive stock prices higher, even when the underlying fundamentals of the company do not support the price increase. This behavior can create market bubbles that eventually burst, resulting in significant market corrections and losses for investors.

In their study on speculative trading and stock prices, Andrei Shleifer and Robert Vishny (1997) suggest that speculative trading can contribute to market inefficiencies and distortions in stock prices. They argue that when investors engage in speculative trading, they

may not be pricing stocks based on the underlying fundamentals of the company, but rather on short-term price movements and trends.

Harrison Hong and Jeremy Stein (2003) examine the impact of herd behavior among investors on stock prices. They argue that when investors engage in herd behavior and follow the same investment trends or fads without conducting thorough research or analysis, it can lead to a feedback loop that drives stock prices higher. However, when the trend reverses, it can lead to a sharp decline in stock prices as the herd rushes to sell.

In their study on capital misallocation in the stock market, Marcin Kacperczyk and Stijn Van Nieuwerburgh (2010) suggest that speculative trading can lead to the misallocation of capital in the stock market. They argue that when investors engage in speculative trading, it can divert resources away from long-term investments in fundamentally sound companies with growth potential, potentially impacting the overall health and efficiency of the stock market.

Finally, regulatory intervention may be necessary to curb excessive speculation and promote market stability. According to George Soros (2010), regulatory measures such as transaction taxes or trading restrictions may be necessary to address the negative impacts of speculative trading in the stock market.

Thus, speculative investment behavior in the stock market can have significant implications for market efficiency, stability, and investor outcomes. Understanding the impact of speculative trading is critical for investors to make informed investment decisions based on sound fundamentals and to mitigate potential risks associated with excessive speculation.

1.2 Objectives

- To Understand the influence of various negative consequences on investment behavior of young investors.
- To study the perception of Investors

2.0 Review of Literature

“The Psychology of Financial Behavior: A Review of Literature and Research Agenda” by Deanne Butchey and Sijing Chen (2021).

This literature review provides an overview of the psychology behind financial behavior, with a focus on the impact of emotions, cognitive biases, and personality traits on financial decision-making. The authors also discuss the role of financial education and interventions in promoting positive financial behavior. “Financial Behavior and Financial Stress: A Review of the Literature” by Michael P. Keane (2021) this literature review examines the relationship between financial behavior and financial stress, with a focus on the impact of debt, income volatility, and financial shocks on individual and household financial outcomes. The author also discusses the role of financial literacy, social support, and coping strategies in mitigating financial stress. “A Review of the Literature on Financial Behavior: The Role of Attitudes and Beliefs” by Catherine Kirsch and Olga Kozlova (2020) This

literature review explores the role of attitudes and beliefs in financial behavior, with a focus on the impact of financial knowledge, risk perception, and financial self-efficacy on financial decision-making. The authors also discuss the role of social norms and cultural factors in shaping financial attitudes and behaviors. “Financial Behavior and Well-Being: A Systematic Review and Future Research Directions” by Joya Misra and Eunjung Jee (2020) This literature review provides a comprehensive overview of the relationship between financial behavior and well-being, with a focus on the impact of financial stress, debt, and financial satisfaction on mental and physical health outcomes. The authors also discuss the need for more interdisciplinary research on financial behavior and well-being.

2.1 Impulse to invest stock market

“An Empirical Study on the Relationship between Impulse Buying Behavior and Investment in Stock Market” by Tae-Hwan Kim and Ki-Soon Hwang (2020) this literature review explores the relationship between impulse buying behavior and investment in the stock market. The authors discuss the impact of various psychological factors, such as emotional arousal, self-control, and financial literacy, on investment decisions made impulsively. “Impulse Investment in the Stock Market: A Review of the Literature” by Ayman H. Omar, Ahmed A. Omar, and Ahmed S. Hassan (2020) This literature review provides an overview of the literature on impulse investment in the stock market, with a focus on the impact of various factors, such as demographic characteristics, financial literacy, and risk perception, on investment behavior. The authors also discuss the implications of impulsive investment decisions for financial well-being. “The Psychology of Impulsive Investment: A Review of the Literature” by Christine S. K. Lim and Kevin K. W. Ho (2019) This literature review examines the psychology behind impulsive investment, with a focus on the impact of emotional arousal, cognitive biases, and personality traits on investment decisions. The authors also discuss the role of financial education and interventions in promoting more rational investment behavior.

2.2 Stock market speculative investment

“Speculative Trading in the Stock Market: A Review of the Empirical Evidence” by Brad M. Barber and Terrance Odean (2014).

This literature review examines the empirical evidence on speculative trading in the stock market, with a focus on the behavior of individual investors. The authors discuss the impact of overconfidence, herding behavior, and self-attribution bias on speculative investment decisions. “Speculative Bubbles in the Stock Market: A Literature Review” by Dilip Kumar and Arunima Haldar (2019) This literature review provides an overview of speculative bubbles in the stock market, with a focus on the causes and consequences of market bubbles. The authors discuss the impact of investor sentiment, market volatility, and information asymmetry on speculative bubbles.”The Role of Institutional Investors in Speculative Stock Market Bubbles: A Literature Review” by Hanaan Yaseen and Adnan Haider (2019) This literature review examines the role of institutional investors in speculative

stock market bubbles, with a focus on the impact of institutional investment behavior on market volatility and asset prices. The authors discuss the potential for institutional investors to exacerbate or mitigate speculative bubbles.

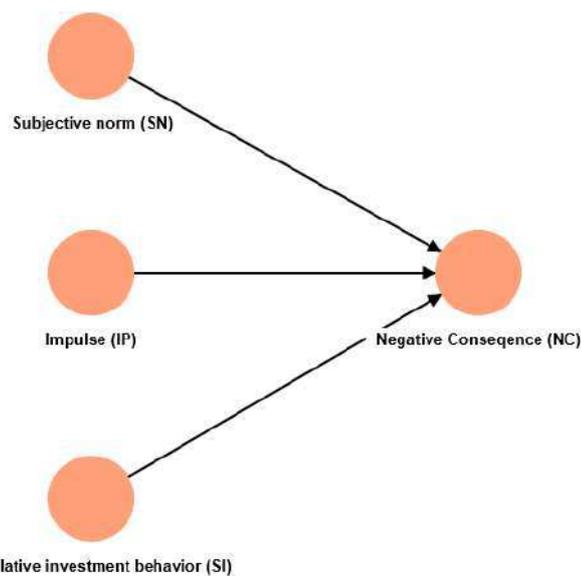
2.3 Negative consequences in stock market

“The Negative Consequences of Stock Market Speculation: A Literature Review” by Naeem Ahmed and Fazal Ahmed (2021).

This literature review examines the negative consequences of stock market speculation, with a focus on the impact of excessive trading, market volatility, and financial bubbles on individual and institutional investors. The authors also discuss the role of regulatory measures in preventing excessive speculation and reducing market volatility. “The Dark Side of the Stock Market: A Literature Review on Negative Consequences of Trading” by Elena Ivona Dumitrescu and Adina Dornean (2020). This literature review provides an overview of the negative consequences of stock market trading, with a focus on the impact of financial losses, stress, and addiction on individual investors. The authors also discuss the role of cognitive biases and emotional factors in driving excessive trading behavior. “The Consequences of Negative Emotions in the Stock Market: A Literature Review” by Emily M. Smith and Stephen J. G. Gift (2018) This literature review examines the consequences of negative emotions, such as fear and anxiety, on stock market behavior and performance. The authors discuss the impact of emotional contagion, information overload, and social influence on individual and collective decision-making in the stock market.

3.0 Conceptual Model and Hypotheses

Figure 1: Conceptual Model



Source: Based on Author's study

H₁: There is a positive influence of impulsive buying behavior on negative consequences in stock market investment.

H₂: There is a positive influence of speculative investment behavior on negative consequences in stock market investment.

H₃: There is a positive influence of subjective norms on negative consequences in stock market investment.

4.0 Research Methodology

4.1 Measurement

To achieve content validity, we developed our measurement items based on an intensive literature review. Based on the extant innovation and IS literature, we developed comprehensive multiple-item measures of impulse, subjective norm, SI and negative consequences. Measures of stock market speculative investment behavior were also developed to assess the potential for stock market speculation (SI); it contains four general questions about overspending of time and money. Negative outcome (Caplan, 2010; Haagsma et al., 2013) was assessed by four questions about financial loss, psychological trouble, trouble in work and social activities and degree of difficulty in managing life overall. Because respondents often underreport negative behaviors and consequences and over-report positive behaviors, Age, gender, education and annual income, which have all been found to potentially influence Stock market speculative investment behaviors, were used as control variables in this study. Before conducting the main survey, a pre-test was performed to examine the reliability and validity of the instruments. The pre-test involved 30 respondents with experience investing in Bitcoin in 2017. The pre-test results led to a significant refinement and restructuring of the questionnaire. The initial face and internal validity of the measures were also established. The measures were evaluated using a seven-point Likert-type scale, ranging from “extremely low” (1) to “extremely high” (7). The structure of the measurements used, and the relevant studies are shown in Table AI (Appendix).

4.2 Sample and data collection

In this study, we targeted Stock market users with and without experience in Stock market speculation in the year 2023 in India because from 2022 to early 2023 is the heaviest period of stock market speculation in which the Nifty index rose sharply from 16822 to 18796 and then promptly fell below 16990 and Stock market trading volume in the year 2023 in India was active enough to rank eleventh worldwide. Survey questionnaires were distributed and collected for three weeks in March 2018, when the price of Stock market had just fallen after its peak in 2023. Whatsapp invitations were first sent to the targeted participants. We continued sending invitations until 120 respondents accepted the offer to participate. Respondents, who all had Stock market investment experience over the previous three months, were asked to respond to the entire questionnaire. To ensure that the respondents fully understood the survey context, an initial screening question was asked to determine

whether they had experience using and investing in Stock market. After the main survey, a total of 115 responses were received, thus, 115 responses were used in our analysis, indicating a usable response rate of 23 percent. In our sample, most respondents (91.9 percent) had Stock market investment experience during 2022 and early 2023.

5.0 Analysis

The partial least squares (PLS) method was adopted to examine the proposed model and its hypotheses. The PLS is recommended for predictive research models with an emphasis on theory development (Fornell and Bookstein, 1982). behavior, we chose PLS because of its appropriateness for exploratory science (Chin, 1998). Smart PLS version 4.00 was used to analyze the measurement and structural models. The responses were collected from the students with the minimum age of 18 years to maximum age of 24 years. Out of the total responses of 115 students, 94 students are pursuing their post-graduation degree and 14 students are pursuing under-graduation degree, whereas, 8 students completed their diploma course. A total of 90 students are from the family with annual income of more than 5 lakhs but less than 10 lakhs between 5-10 lakhs.

Table 1: Construct Reliability and Validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
IP	0.784	0.826	0.856	0.598
NC	0.878	0.879	0.926	0.806
SI	0.754	0.808	0.857	0.671
SN	0.789	0.942	0.839	0.572

Source: Based on author's study

Table 2: Heterotrait-monotrait Ratio (HTMT) – Matrix

NC <-> IP	0.605
SI <-> IP	0.682
SI <-> NC	0.765
SN <-> IP	0.179
SN <-> NC	0.097
SN <-> SI	0.383

Source: Based on author's study

Table 3: Fornell-Larcker Criterion

	IP	NC	SI	SN
IP	0.773			
NC	0.535	0.898		
SI	0.517	0.639	0.819	
SN	0.048	0.078	0.282	0.756

Source: Based on author's study

Table 4: VIF Values

	VIF
IP -> NC	1.384
SI -> NC	1.500
SN -> NC	1.102

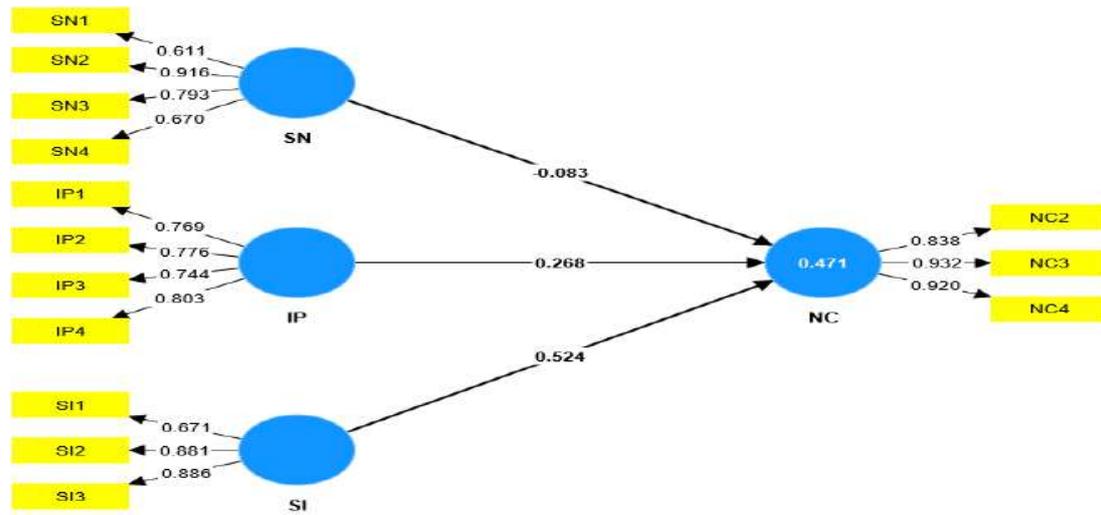
Source: Based on author's study

Table 5: Path Coefficient Values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
IP -> NC	0.268	0.283	0.086	3.111	0.002
SI -> NC	0.524	0.510	0.092	5.662	0.000
SN -> NC	-0.083	-0.071	0.109	0.762	0.446

Source: Based on author's study

Figure 2: Partial Least Square Structural Equation Model Analysis



Source: Based on author's study

6.0 Discussions and Conclusion

Many experts have questioned the feasibility of the stock market despite the high expectations for its potential. In reality, the stock market is primarily used as a speculative asset rather than a substitute for money. We wondered what people's thought processes are when they regard the stock market as a speculative asset, which was not its intended usage, as Nakamoto (2008), who initially proposed the stock market to the world, did not foresee this circumstance. Do speculative stock market investments actually have a detrimental impact?

By looking into how persons who engaged in stock market speculation made decisions, this study aims to provide answers to those research issues. First, the findings of this study demonstrated that speculative investment behaviour on the stock market is largely irrational. Stock market users or investors lost self-control and were easily swayed by impulse due to the price volatility and allure of a huge return, which led them to engage in unplanned behaviour, or stock market speculation. We used the dual-systems concept, which contends that two different systems (i.e., reflexive and reflective) fight to influence people's behaviour, to explain stock market speculative investing behaviour. The outcomes of this study empirically show that speculative investment behaviour is a result of an imbalance between the two cognitive systems. Second, this study discovered that the combination of a high impulse and a lack of self-control underlies speculative investment behaviour in the context of the stock market.

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Sustainable Development Goals and Indian Health System: A Kaleidoscope Perspective

Suresh Babu Nethi and Sreenivas Talluru***

ABSTRACT

Healthcare has become one of India's most significant sectors in terms of both revenue and employment. The healthcare industry comprises hospitals, medical equipment, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and other related services. The Indian healthcare system is expanding significantly as a result of its increasing coverage and services, as well as rising investment by public and private entities. The primary objective of Consistent economic and environmental stability is the main goal of sustainable development, and this can only be achieved by examining and embracing issues pertaining to the social, environmental, and economic dimensions of decision-making.. Without sacrificing the quality of care, sustainable healthcare incorporates products, services, and healthcare operations with superior environmental performance. When describing sustainability issues in relation to health and well-being, three distinct types must be taken into consideration. This paper aims to provide an introduction to the Sustainable Development Goals (SDGs), a snapshot of the Indian health care system, and a conceptual model of sustainable healthcare, among other things.

Keywords: *Sustainable development goals; Health system; Healthcare quality and its pillars; & SD drivers.*

1.0 Introduction

Sustainable development is defined as “the development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Tsioumpri & *etal* .2020). Today, the term of sustainability cannot be limited to environmental health alone; it must be expanded to include a variety of other factors, such as the health of consumers, employees, and the community. Leading in incorporating elements of sustainability into business practises is essential for efficient resource management, continuous enhancement of services, and cost-effectiveness in the formation of service excellence for business sustainability (Marimuthu & Paulose, 2016).

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Consistent economic and environmental stability is the overarching goal of sustainable development, and it can only be achieved by appropriately analysing and accepting issues pertaining to the social, environmental, and economic dimensions of decision-making. Participatory decision-making is fundamental to the principles of sustainable development. Whatever sets sustainability apart from other developmental plans is this deeply rooted idea of integrativeness. (Mir & Singh, 2022).

The Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs), which both commemorate historic global mobilisation to reach global targets, serve as contemporary representations of this issue (Breuer, et al., 2019). A new set of goals, the SDGs, must be reached by 2030 and are in fact a call to action. The SDGs' main themes are widely dispersed, summed up in the constant focus on the people, planet, peace, prosperity, and partnerships (Taylor, 2016).

The United Nations (UN) has twice committed to a specified agenda that must be fulfilled by all 189 member states in order to advance global development goals. The Sustainable Development Goals (SDGs), the current framework for 2015–2030, replaced the Millennium Development Goals (MDGs), which were established for the period 2000–2015. The MDGs succeeded in meeting many of their objectives. According to estimates, almost 21 million additional lives may have been spared over this time (Asi & Williams, 2018).

The Sustainable Development Goals (3) seek to provide a healthy life and promote wellbeing for people of all ages by 2030. Its goal is to stop epidemics like HIV/AIDS, tuberculosis, malaria, and other tropical diseases that are not given enough attention (Bayro & *etal.* 2022).

The third Sustainable Development Goal (SDG)—“ensure healthy lives and promote well-being for all at all ages”—is particular to health. It is one of the 17 SDGs that were adopted by the United Nations (UN) General Assembly in its seventieth session in 2015 and are intended to be accomplished by 2030. The universal health coverage (UHC; SDG 3.8) component of SDG 3 aspires to give everyone access to high-quality healthcare without facing financial hardship. Indirectly, other SDGs—such as those addressing hunger, gender equality, access to clean energy and water, sustainable cities and communities, combating climate change, and promoting peace, justice, and strong institutions—also help people achieve better health (Chatchai et al., 2020). The Sustainable Development Goals (SDGs) feature precise targets like their predecessors, the Millennium Development Goals, but also place more of an emphasis on wider, interconnected factors like sustainability and social justice, fostering a more integrated development agenda (Hone et al., 2018).

Sustainable development is centred on people. The commitment is to work towards a just, equitable, and inclusive world in which all parties are committed to fostering inclusive economic growth, social development, and environmental protection for the benefit of all, regardless of age, sex, disability, culture, race, ethnicity, origin, migration status, religion, economic status, or other status. The 17 interrelated sustainable development goals are established based on these aspirations. In September 2015, these will be completed.

GOAL 1 End poverty in all its forms everywhere

GOAL 2 End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

GOAL 3 Ensure healthy lives and promote well-being for all at all ages

GOAL 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

GOAL 5 Achieve gender equality and empower all women and girls

GOAL 6 Ensure availability and sustainable management of water and sanitation for all

GOAL 7 Ensure access to affordable, reliable, sustainable, and modern energy for all

GOAL 8 Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all

GOAL 9 Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

GOAL 10 Reduce inequality within and among countries

GOAL 11 Make cities and human settlements inclusive, safe, resilient, and sustainable

GOAL 12 Ensure sustainable consumption and production patterns

GOAL 13 Take urgent action to combat climate change and its impacts

GOAL 14 Conserve and sustainably use the oceans, seas, and marine resources for sustainable development

GOAL 15 Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

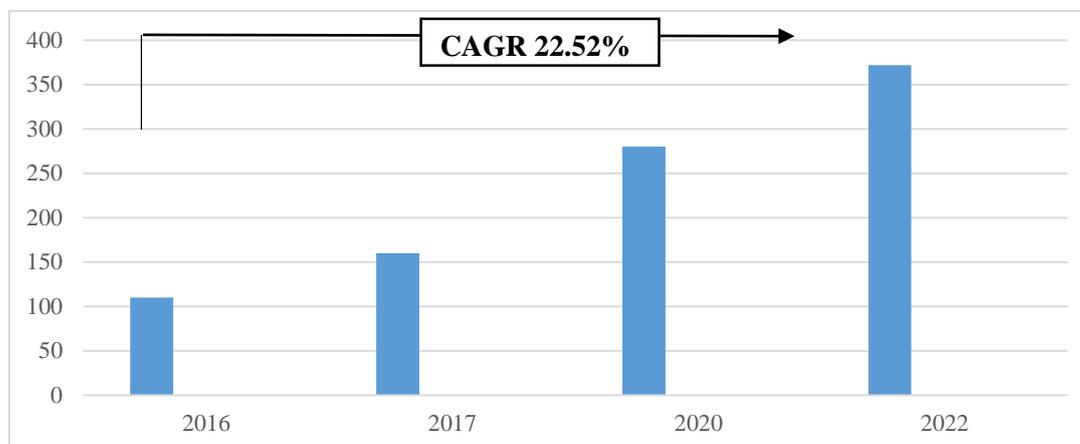
GOAL 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels

GOAL 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development (Tangcharoensathien & *et al.* 2015).

2.0 Snapshot of Indian Healthcare System

India's healthcare industry has grown significantly in both employment and income. Hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and medical equipment all fall under the category of healthcare. Due to improved services, coverage, and rising spending by both public and private entities, the Indian healthcare industry is expanding quickly.

The public and private sectors make up the two main components of India's healthcare delivery system. The government, or public healthcare system, concentrates on establishing primary healthcare centres (PHCs) in rural areas while maintaining a small number of secondary and tertiary care facilities in major cities. The bulk of secondary, tertiary, and quaternary care institutions are run by the private sector, with a concentration in metropolises and tier-I and tier-II cities (IBEF, 2022).

Figure 1: Healthcare Sector Growth Trend (US\$ Billion)

Source: IBEF Healthcare Sector Presentation June, 2022

Table 1: State/UT wise Number of Doctors Possessing Recognised Medical Qualifications (Under I.M.C Act) Registered with State Medical Councils/Medical Council of India from the Year 2010 upto 2019 (As on 31st December of Concerned Year)

#	State/UT	Upto 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total Up to 2019
1	Andhra Pradesh	66109	4370	4498	5737	5415	4973	2654	3075	3756	2337	102924
2	Arunachal Pradesh	334	80	12	29	29	108	145	116	193	97	1169
3	Assam	19147	561	487	611	611	564	661	990	752	181	24083
4	Bihar	37368	969	464	1282	1282	970	575	1253	1332	1153	45795
5	Chattisgarh	3224	882	595	812	812	542	653	733	774	787	9555
6	Delhi	6748	1006	946	1713	1713	2179	2549	2379	2801	3605	24999
7	Goa	2828	119	136	126	126	150	109	47	193	50	3890
8	Gujarat	47231	1795	2197	2188	2188	2427	2455	2890	3608	2802	69746
9	Haryana	5356	361	754	500	500	1112	1355	1452	1458	1678	14517
10	Himachal Pradesh	913	310	459	276	276	363	437	113	NR	1	3168
11	Jammu & Kashmir	11360	635	471	473	67	495	484	430	805	339	15559
12	Jharkhand	3245	490	355	283	285	314	310	320	402	594	6598
13	Karnataka	87734	3727	4207	4772	833	4251	4434	5002	5301	6306	126567
14	Madhya Pradesh	26669	947	1507	1298	1409	1417	1585	1792	1556	1991	40171
15	Maharashtra	138303	3157	3433	3682	4938	5485	5271	5755	6320	7499	183843
16	MCI	37300	3730	4864	5603	1169	NR	NR	NR	NR	NR	52666
17	Mizoram	NR	NR	0	0	5	15	23	15	16	23	97
18	Nagaland	0	0	0	0	0	20	50	21	25	18	134
19	Odisha	16786	460	380	719	2402	934	840	879	NR	1380	24780
20	Punjab	39291	1128	1083	1234	1270	1418	840	1392	1544	1458	50658
21	Rajasthan	28797	1146	1442	1468	1963	2040	1821	2186	2525	2865	46253
22	Sikkim	608	69	74	73	109	91	138	115	128	9	1414
23	Tamil Nadu	86822	3476	4182	9218	5064	5088	7997	6960	7167	8763	144737
24	Kerala	40007	2008	3451	1482	2500	3352	4567	1695	2814	3809	65685
25	Uttar Pradesh	58168	2081	2247	2253	594	2914	3025	3549	3669	3799	82299
26	Uttarakhand	3394	307	527	169	660	748	743	833	928	659	8968
27	West Bengal	59264	1230	917	1419	953	1586	1766	2337	2544	2038	74054
28	Tripura	NR	NR	227	64	391	236	235	212	NR	NR	1945
29	Telangana	0	0	0	0	0	1	2354	2587	2989	NR	7931
	Total	789706	31314	35048	40641	36395	43793	48076	48728	53600	54238	1234205

Source: National Health Profile – 2021

The Table 1 depicts the Number of Doctors Possessing Recognised Medical Qualification. As per the table it is evident that majority of the doctors registered from Maharashtra state i.e., 1,83,843 Karnataka with 1,44,737 since from the year 2010 to 2019.

In the Table 2 outlined the number of Sub Centres, Primary Health Centres & Community Health Centres functioning in India.

Table 2: State/UT wise Number of Sub Centers, PHCs & CHCs Functioning in India as on 31st March, 2020 S. No. States/UT

#	State/UT	Sub Centres	PHCs	CHCs
	India	157921	30813	5649
1	Andhra Pradesh	7458	1385	198
2	Arunachal Pradesh	363	124	60
3	Assam	4680	1002	192
4	Bihar	10280	2027	64
5	Chhattisgarh	5569	837	174
6	Goa	218	59	6
7	Gujarat	9162	1795	362
8	Haryana	2617	485	131
9	Himachal Pradesh	2104	588	92
10	Jammu & Kashmir	2492	972	77
11	Jharkhand	3848	351	177
12	Karnataka	9435	2534	208
13	Kerala	5410	932	227
14	Madhya Pradesh	10226	1476	330
15	Maharashtra	10649	2675	418
16	Manipur	418	93	17
17	Meghalaya	443	143	28
18	Mizoram	370	65	9
19	Nagaland	415	137	21
20	Odisha	6688	1377	384
21	Punjab	3047	527	155
22	Rajasthan	13530	2477	614
23	Sikkim	153	25	2
24	Tamil Nadu	8713	1884	400
25	Telangana	4841	885	95
26	Tripura	1001	112	22
27	Uttarakhand	1847	295	68
28	Uttar Pradesh	20778	3473	723
29	West Bengal	10357	1369	348
30	A & N Islands	124	27	4
31	Chhattisgarh	0	48	2
32	D & N Haveli	97	13	4
33	Daman & Diu	258	546	23
34	Delhi	238	32	7
35	Lakshadweep	11	4	3
36	Puducherry	81	39	4

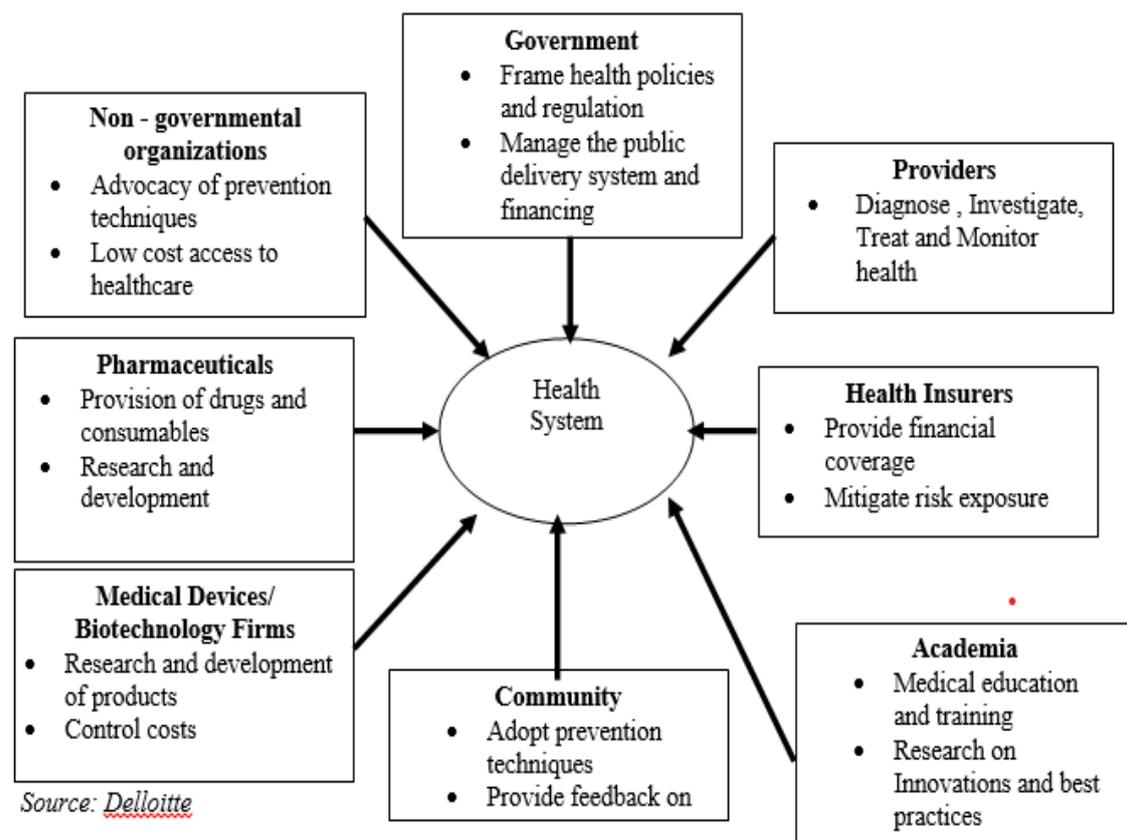
Source: National Health Profile – 2021

3.0 Different Stakeholders and their Roles

Recognising the roles that diverse stakeholders play along the care continuum becomes equally vital. The system's many stakeholders are represented by the healthcare ecosystem, along with their roles in terms of inputs and functions.

- A wide range of stakeholders, including the government, insurers, providers (public and commercial), manufacturers of drugs and medical equipment, NGOs, and academic institutions.
- A variety of inputs, such as money, capital, medicines, and equipment; and trained human resources (doctors, nurses, administrators, etc.).
- A number of supporting activities, such as hospital administration, auxiliary services (such as upkeep, security, cleaning, and kitchen), IT systems, and supply chain management.
- The business environment, including legislation, the political climate, real estate, and population demographics

Figure 2: Various Stakeholders and their Functions in the Healthcare System



4.0 Sustainable Development in Healthcare

Since the establishment of the United Nations Conference on the human environment in 1972, sustainable development of healthcare has made great progress at the local, national, regional and international levels. However, the famous Brundtland Commission Report points out the unequal development of environment, economy and society (Xue & *etal.*2021). Today, sustainable development goals and sustainable health care should be funded, but national health care finance is obviously not sufficient to meet these investment needs yet. Consequently, the public and private sustainable financial sector has an important role to play in filling this investment gap. Mobilizing public and private investors to finance sustainable projects on health care system should be important (Sepetis, 2020). Notably, the SDGs contain no mention of primary health care (PHC)¹—one of the principal strategies for reshaping health care, promoting health-enhancing policies across sectors, and developing more equitable and fairer societies (Hone & *etal.*, 2018).

Although the number of SDGs—17 goals and 169 targets—has drawn criticism, each goal and target has connections and reflects the need for multifaceted and multisectoral policy interventions for sustainable development in a nation. In order to address these, measures such as universal health care (UHC), employment, decent jobs, quality education, environmental protection, hunger, food insecurity, and malnutrition must be taken. Each of these concerns is integrated with health considerations and accepted within an equity framework. (Tangcharoensathien, 2015).

5.0 Definition of Sustainable Healthcare

Sustainable healthcare refers to healthcare operations, goods, and services that have better environmental performance without sacrificing the standard of care provided. There are three distinct types of sustainability challenges that need to be considered when discussing their relationship to health and wellness. (Eriksson & Turnsted, 2019).

Figure 3: Sustainable Healthcare

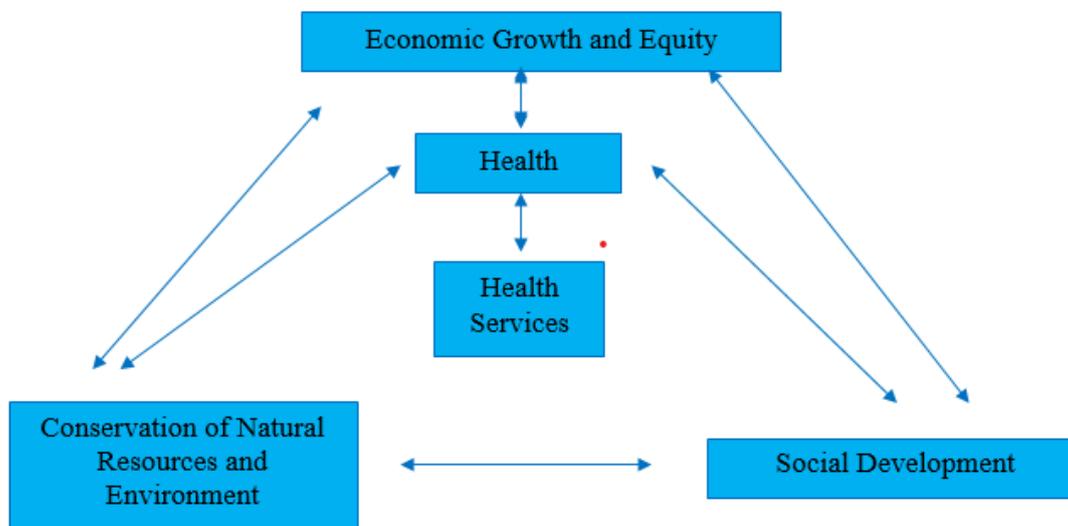


Source: Nordic Whitepaper about Sustainable Healthcare, 2019

Figure 5 illustrates the central role of health services in the nexus that connects health and sustainable development. It also implicitly captures the role that health services trade can play within this nexus (Chanda, 2017).

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Figure 4: Triad of Health and Sustainable Development

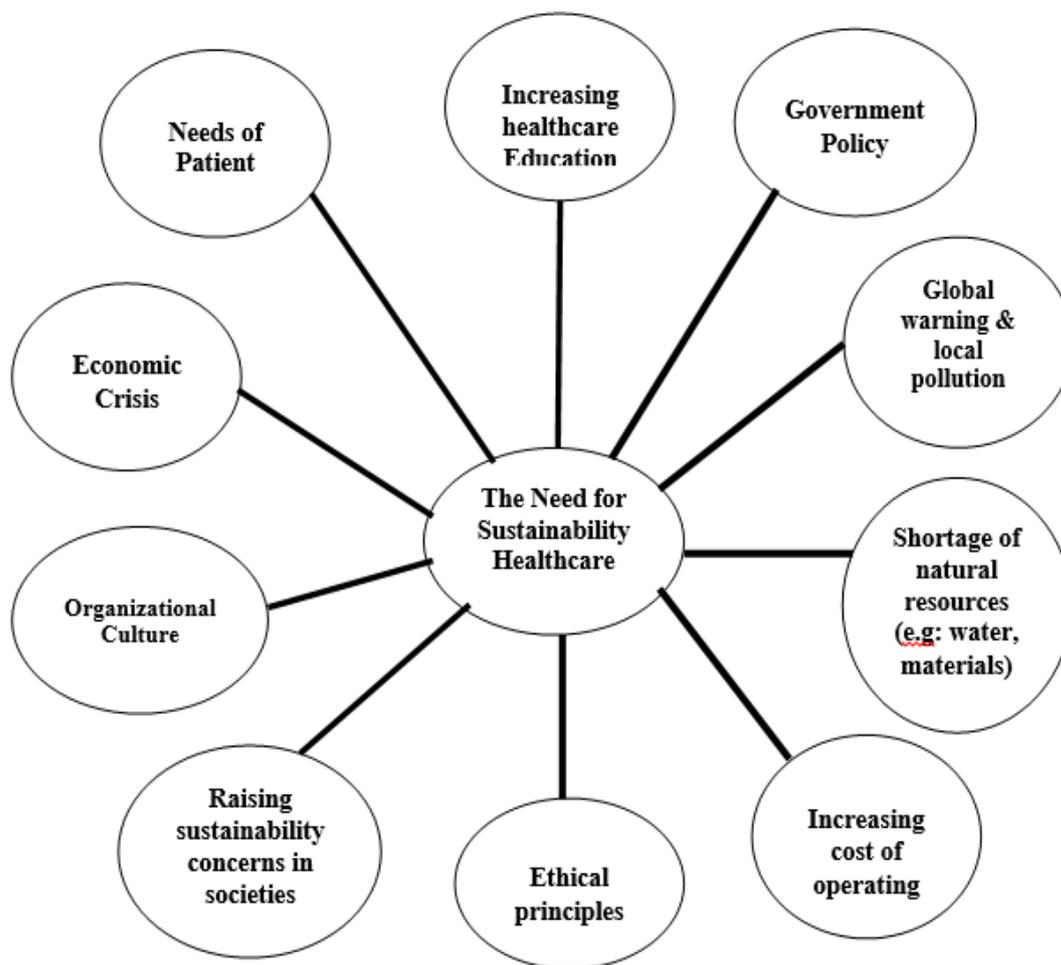
The service's dependence (and effects) on various groups, such as patients and careers, workers, local communities, and persons involved in the supply chain, would be taken into account when analysing the use of social resources. A "Seven Capitals Matrix" can help identify the full spectrum of resources that are being used—or could be used—to produce health improvement for an even more comprehensive assessment of the current system (Mortimer *et al.*, 2018).

Table 3: Seven Capitals of Healthcare Adapted from Sustainable System-wide Commissioning - Guide for Clinical Commissioning Groups

Financial	Budget, incentives and finance, accounting models that enable healthcare delivery
Staff	Expertise, motivation and time
Patients	Commitment, skills, understanding and confidence to look after their health, contribute to treatments and initiate access to services based on agreed thresholds or unforeseen needs
Community	Patients' social support networks that underpin healthy, independent living such as families, friends, charities, facilitated relationships with support services and other patients
Staff Networks	Connections between staff, experts in other fields and patients that enable information sharing and coordination of care
Infrastructure	From buildings and energy use, to equipment, IT systems and local transport systems
Natural	Services provided by nature such as clean air, fertile soil, stable climate, available water, green space. Also, raw materials for consumables eg metals, chemicals, fossil or renewable fuels and biomaterials

Source: Mortimer & etal, 2018

Figure 5: The Need for Sustainability Healthcare



Source: Marimuthu & Paulose, 2015

The health system’s public health initiatives play an equal role in preserving community health and retaining residents’ interest in illness prevention. illnesses, as well as leading healthy, fulfilling lives. Whether brought on by human activity or a natural calamity, any abrupt blip in the smooth provision of health services has the potential to adversely affect the majority of essential services. The SDG 3 targets are listed in the table that follows (Khetrapaul and Bhatia, 2020).

Additionally, new institutions should be founded and intake capacity should be increased as part of the strategies. A stronger focus on expanding current public health spending, enticing individuals to enter the nursing profession, and developing and funding healthcare facilities to accommodate them are among the crucial supporting measures (Karan et al., 2023).

Table 4: Summarized Targets for Sustainable Development Goal 3

By 2030
<ol style="list-style-type: none"> 1. reduce the global maternal mortality ratio to <70 per 100,000 live births 2. <u>end</u> preventable deaths of <u>newborns</u> and children under five years of age and reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births. 3. end the epidemics of AIDS, TB, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases 4. <u>reduce</u> by one-third pre-mature mortality from non-communicable diseases and promote mental health and well-being. 5. <u>strengthen</u> the prevention and treatment of substance abuse. 6. <u>halve</u> the number of global deaths and injuries from road traffic accidents. 7. <u>ensure</u> universal access to sexual and reproductive healthcare services. 8. <u>achieve</u> universal health coverage. 9. <u>substantially</u> reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. <p><u>3A.</u> Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control.</p> <p><u>3B.</u> Support the research and development of vaccines and medicines for the communicable and non-communicable diseases.</p> <p><u>3C.</u> Substantially increase health financing and the recruitment, development, training and retention of the health workforce.</p> <p><u>3D.</u> Strengthen the capacity of all countries for early warning, risk reduction and management of national and global health risk</p>

Source: <https://sustainabledevelopment.un.org/SDG>

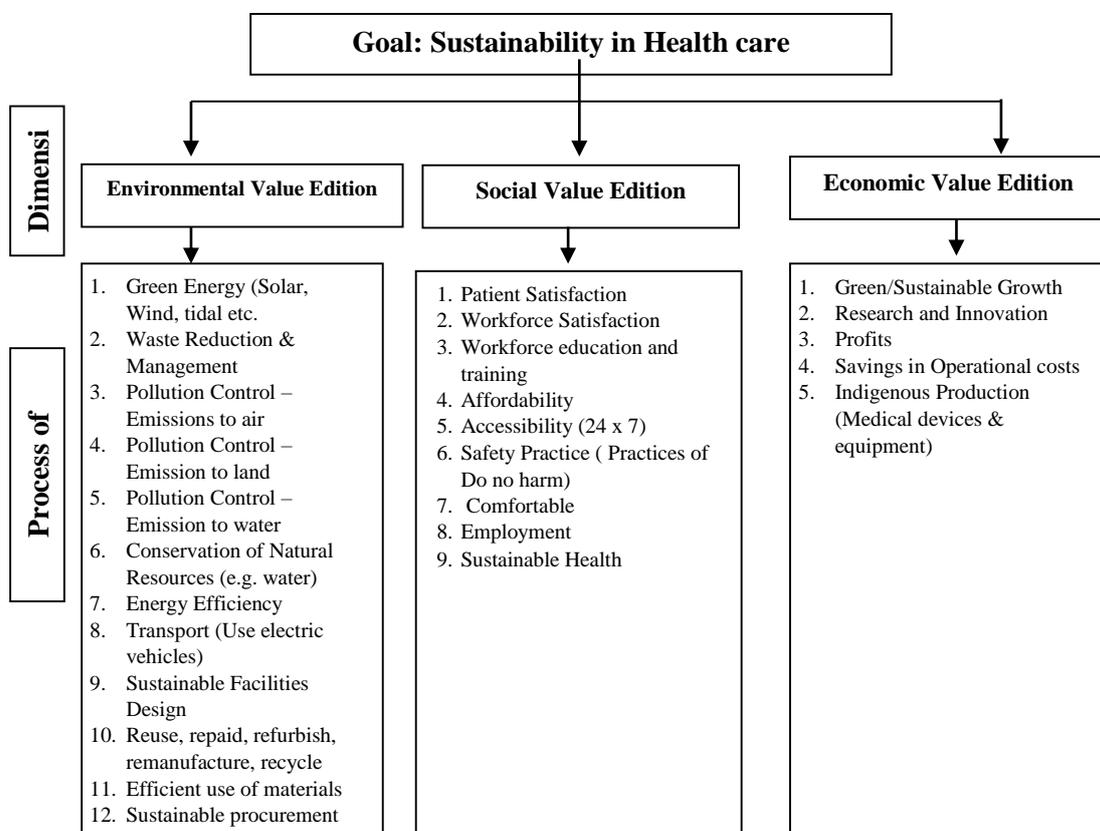
6.0 Conceptual Model for Sustainability in Healthcare

The model outlined the three dimensions: environmental, social, and economic. This model describes the process of sustainability (Mehra & Sharma), 2021).

The elements identified in the literature from the 30 most cited articles in the period from 2016 to 2021 were grouped into five drivers for developing and managing sustainability in hospitals, as shown in Figure (Oliveira & *etal*, 2022).

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Figure 6: Concept Model for Sustainability in Healthcare

Source: Mehra & Sharma, 2021

Fortunately, the majority of nations continue to base healthcare on the ideas of equality and solidarity. Instead of accepting health as a fundamental right based on the idea of social solidarity, the application and penetration of neoliberal concepts into the healthcare sector may lead to these ideals being directed towards making money for corporate interests. Healthcare services in almost every country face a number of obstacles in the future, notwithstanding the highly unexpected economic and political components of global development:

1. A change in the demographic profile.
2. Insufficient resources; rising prices.
3. Medical genderization.
4. A lack of skilled workers.
5. Employees' quality of life as well as their ability to live within acceptable social boundaries.
6. Threats to nonlinear healthcare.
7. Amplification of administrative procedures.
8. Cybersecurity is number 8 (Pekar, 2019).

Figure 7: Drivers for Developing and Managing Sustainability in Hospitals to Achieve the SDG Goals

Circular Economy	Sustainable Buildings	Knowledge Management & Organizational Culture	Organizational Management	Technological Innovation
<ul style="list-style-type: none"> • Shared Decisions • Green purchasing/procuring • Supplier Selection • Revenue Logistics • Partnership with recycling companies • Reuse of materials and instruments. • Hospital Waste Management 	<ul style="list-style-type: none"> • Environmental sustainability requirement • Economic viability • Social sustainability requirements 	<ul style="list-style-type: none"> • Intellectual Capital • Active Participation of HRs. • Training awareness • Engaging employees • Sustainable Ideas • Creating work teams • Openness to Change • Listening to stakeholders • Health care course curricula • Corporate social responsibility • Mission, Vision & policies 	<ul style="list-style-type: none"> • Public Private Partnership • Corporate Governance • Objectives, targets & KPIs • Environmental Management system • Health Technology Assessment • Lean Six Sigma 	<ul style="list-style-type: none"> • Technological innovation for economic sustainability • Technological innovation for environmental sustainability • Technological innovation for social sustainability

Hospitals contributing to sustainable development

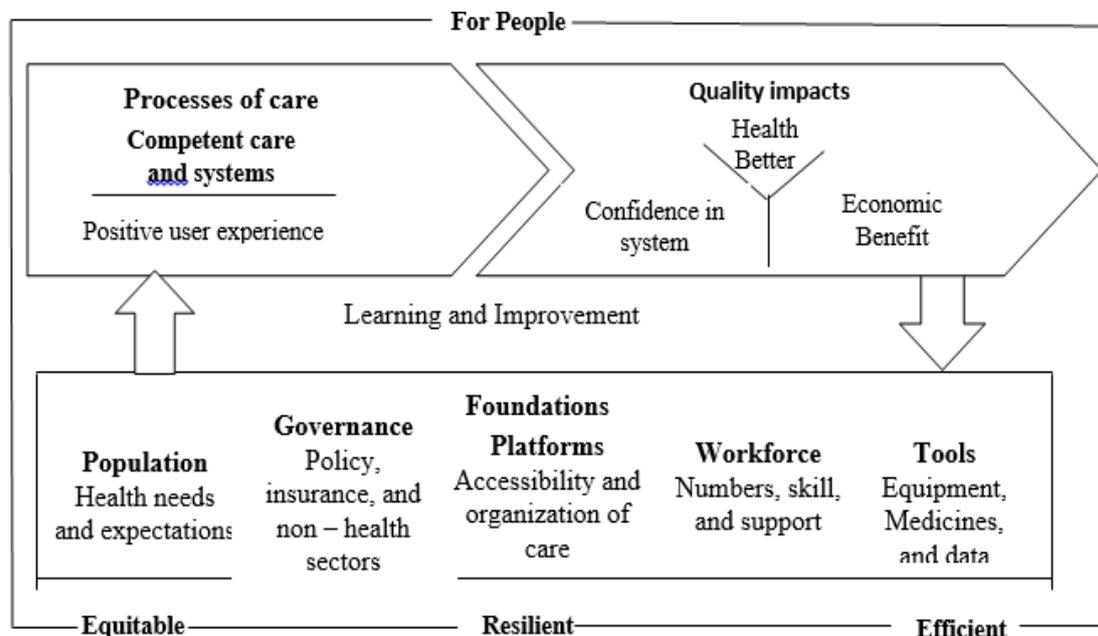


7.0 The Meaning of Quality in Health

Healthcare quality is the most crucial idea in health policy. Most often, this idea is a fundamental rule at both the national and international levels. Since access to decent

healthcare is a fundamental right, the government is working to solve numerous problems at the national level. Foundations, care procedures, and quality impacts make up a new conceptual framework for high-quality healthcare systems (Figure 8). This framework is based on our definition of high-quality health systems and draws inspiration from earlier frameworks in the fields of health systems and quality improvement, such as Donabedian's framework, the WHO's building blocks and maternal quality of care frameworks, Judith Bruce's family planning quality framework, Getting Health Reform Right, the Juran trilogy, and the Deming quality cycle (Kruk et al., 2018). Health services are that portion of the health system that concentrates specifically on delivering medical treatment to society. A complex web of structural connections between institutions and populations that have an effect on health are included in a health system (Lambrini Kourkouta, 2021).

Figure 8: High-Quality Health System Framework



Source: *The Lancet Global Health Commission*, November, 2018

8.0 Six Pillars of High-Quality Care

The US National Academy of Medicine created one of the most well-known classifications of medical care quality. It outlines six pillars of high-quality care: equity, timeliness, efficiency, patient-centeredness, and safety. Despite this apparent unity, various topics are viewed differently in practise. Few quality assessment programmes include timeliness and patient centeredness, and very few programmes address the efficacy and equality of care. Many programmes exclusively concentrate on effectiveness and safety.

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Table 5: Six Pillars of High-Quality Care

Pillar # 1	Safety - High-quality care avoids preventable harm to patients.
Pillar # 2	Effectiveness - High-quality care is based on scientific knowledge and given to all who could benefit / not given to who is not likely to benefit (i.e. avoiding underuse and misuse, respectively).
Pillar # 3	Patient-centeredness - High-quality care is respectful of and responsive to individual patient preferences, needs, and values and ensures that patient values guide all clinical decisions.
Pillar # 4	Timeliness - High-quality care minimizes wait times and harmful delays for both those who receive and those who provide care.
Pillar # 5	Efficiency - High-quality care avoids waste of any kind (e.g. equipment, supplies, ideas, energy).
Pillar # 6	Equity – High-quality care does not discriminate care recipients based on their personal characteristics (e.g. gender, ethnicity, geographic location, socioeconomic status).

Source: Annegret F. Hannawaa, 2022

8.0 Conclusion

Out of 13 goals make up Sustainable Development Goal 3 is intended to address important health issues like reproductive, maternal, and child health, communicable diseases, non-communicable diseases (NCDs), and environmental diseases; universal health coverage; and access to medicines and vaccines that are high-quality, safe, effective, and affordable for everyone. Additionally, issues related to everyone's health and wellbeing are addressed, both directly and indirectly.

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A Comparative Study of CSR Spending on Environmental Sustainability in India

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ABSTRACT

The present research examines the environmental sustainability contributions of the top ten companies in India engaged in CSR activities and focuses on the CSR spending patterns of these companies and the proportion of their CSR funds that are directed towards environmental sustainability. The paper finds significant variation among the top ten companies in terms of their CSR spending and contributions towards environmental sustainability. The paper highlights the commendable efforts of companies like Wipro Ltd, ITC Ltd, and Infosys Ltd, which have directed a significant portion of their CSR funds towards environmental sustainability. However, the paper also notes that certain companies, despite significant CSR spending, have not adequately contributed towards environmental sustainability. These companies include Tata Consultancy Services Ltd, Tata Sons Private Ltd, and Indian Oil Corporation Ltd. The findings emphasize the need for companies to prioritize environmental sustainability in their CSR activities, given the pressing environmental challenges facing the country.

Keywords: *Corporate Social Responsibility (CSR); Environmental sustainability; CSR practicing; Top ten CSR-contributing companies of India.*

1.0 Introduction

In recent years, Corporate Social Responsibility (CSR) has gained significant importance in the business world. Companies have come to realize the importance of integrating ethical, social, and environmental concerns into their operations and interactions with stakeholders. The core of CSR lies in acknowledging the impact a company has on society and the environment, beyond just the financial bottom line. A vital component of CSR is environmental sustainability, which involves the responsible use and management of natural resources to ensure their preservation and prevent damage over time. This includes reducing negative environmental impacts such as greenhouse gas emissions, water pollution, and deforestation, and promoting positive environmental outcomes such as the conservation of natural habitats and biodiversity.

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Environmental sustainability is an essential topic of research and discussion, as it holds significance for several reasons.

- It ensures that natural resources remain available for future generations.
- It can reduce the costs associated with environmental damage and pollution.
- It can enhance a company's reputation and brand image, leading to increased customer loyalty and sales.

Therefore, exploring the concept of environmental sustainability in the context of CSR is crucial for companies seeking to create long-term value and contribute to a sustainable future. To achieve environmental sustainability, companies can adopt various practices as part of their CSR strategy. These practices include reducing energy consumption and greenhouse gas emissions through the use of renewable energy sources, improving energy efficiency, and implementing sustainable transportation practices. Additionally, companies can minimize waste by utilizing eco-friendly materials, reducing packaging, and implementing recycling programs. They can also conserve natural resources by implementing sustainable forestry practices, reducing water consumption, and promoting sustainable agriculture. Companies can promote biodiversity by protecting and restoring natural habitats and working with suppliers to ensure sustainable sourcing practices. This involves taking steps to preserve and restore ecosystems, protecting endangered species, and promoting biodiversity in areas where it has been impacted by human activity.

Adopting these practices is crucial for companies seeking to create a sustainable future and generate long-term value. By prioritizing environmental sustainability as part of their CSR strategy, companies can not only reduce their environmental impact but also enhance their reputation and brand image, leading to increased customer loyalty and sales. Therefore, it is essential to explore and understand the various actions that businesses can take to promote environmental sustainability within the context of CSR.

Considering CSR and environmental sustainability is essential for businesses operating in society. By integrating these principles into their operations and interactions with stakeholders, companies can reduce their negative impact on the environment and contribute to a more sustainable future. This not only benefits the environment but also enhances the company's reputation and brand image, leading to increased customer loyalty and sales. Therefore, exploring the various ways in which businesses can promote biodiversity and integrate CSR and environmental sustainability into their operations is crucial for creating a sustainable future.

2.0 Different Perspectives of CSR in India

In Indian context, CSR refers to the responsibility of companies towards society and the environment. CSR initiatives aim to positively impact society, the environment, and communities in which businesses operate, beyond the company's primary objectives of profit-making.

Business tycoons such as Jamshedji R Tata and G D Birla believed in giving back to society, which led to the concept of CSR in India being traced back to the pre independence era. CSR initiatives in India are diverse and cover a wide range of areas such as education, healthcare, poverty alleviation, environmental sustainability, and more. Many Indian companies have implemented CSR initiatives in collaboration with local communities, NGOs, and government bodies to drive social and environmental impact.

The formal recognition of CSR practices in India came with the Companies Act, 2013, which made it mandatory for certain categories of companies to spend 2% of their net profits on CSR activities. Since then, CSR has become an integral part of the corporate strategy of many companies in India.

As per Section 135 of the Companies Act. 2013, “Corporate Social Responsibility means the responsibility of a company, for the impact of its activities on society and environment, in a transparent and ethical manner, that contributes to sustainable development of the communities in which it operates.

CSR a concept has attracted attention from various perspectives in academic literature. Following are different perspectives on CSR, that highlighting their main features and contributions.

- **Economic Perspective:** This perspective views CSR as a way for companies to enhance their financial performance by creating shared value for stakeholders. Companies are expected to identify social and environmental issues that are relevant to their business operations and develop strategies to address them. According to this perspective, CSR initiatives can lead to cost savings, increased revenues, and improved reputation, which in turn can benefit shareholders (Porter & Kramer, 2006).
- **Ethical Perspective:** It emphasizes the moral obligation of companies to respect human rights, protect the environment, and promote social justice. CSR is seen as a way for companies to fulfil their responsibilities to society and contribute to the common good. Companies are expected to adopt ethical principles and values in their business practices, and to go beyond compliance with legal requirements (Crane, Palazzo, Spence, & Matten, 2019).
- **Stakeholder Perspective:** It recognizes the diverse interests and expectations of stakeholders, including employees, customers, suppliers, communities, and the environment. CSR is seen as a way for companies to engage with stakeholders and respond to their concerns and needs. Companies are expected to involve stakeholders in decision making processes, and to balance their interests with those of shareholders (Freeman, 2010).
- **Strategic Perspective:** It views CSR as a way for companies to align their social and environmental objectives with their business strategy. CSR is seen as a source of competitive advantage, differentiation, and innovation. Companies are expected to integrate CSR into their core business processes, and to measure and communicate the impact of their initiatives (Porter & Kramer, 2011).

- **Institutional Perspective:** It highlights the role of external norms, expectations, and pressures in shaping CSR practices. CSR is seen as a way for companies to conform to social and environmental standards, and to gain legitimacy and reputation in the eyes of stakeholders. Companies are expected to respond to institutional pressures from governments, NGOs, and other actors, and to demonstrate their commitment to CSR through symbolic actions and communication strategies (Suchman, 1995).

Table-1 along with graphical presentation shows the percentage of CSR spending in different areas by Indian companies. The statement concludes that Education & Skill Development received the highest amount of CSR spending, followed by Rural Development Projects, Health Care, and Environmental Sustainability. Other areas, such as Eradicating Hunger & Poverty, Water & Sanitation, and Women Empowerment, received comparatively lower amounts of CSR spending. The statement also notes that some areas, including Animal Welfare, Armed Forces, Art & Culture, Training to Promote Sports, Prime Minister's National Relief Fund, and Other Central Government Funds, received relatively small amounts of CSR spending. Overall, the distribution of CSR spending in different areas provides insights into the priorities and values of the companies that contributed to these projects.

3.0 CSR and Environmental Sustainability

To use and manage natural resources in a responsible way to meet present needs without harming the ability of future generations to meet their own needs is referred to as environmental sustainability. It involves protecting and preserving environmental resources, including land, water, air, biodiversity, and ecosystems, for the benefit of both current and future generations.

One of the most widely accepted definitions of environmental sustainability comes from the Brundtland Commission's report, *Our Common Future*, which defines sustainability as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

United Nations Environment Programme (UNEP), describes environmental sustainability as "The ability of natural systems to function effectively and efficiently, to remain diverse and resilient, and to meet human needs indefinitely."

In recent years, there has been a growing focus on environmental sustainability as a key area for CSR investment in India that indicates a growing recognition of the importance of environmental sustainability as a business issue and a societal challenge, and emphasizes the need for companies to take responsibility for their environmental impacts and contribute to a sustainable future.

The growing awareness and concern among stakeholders, including consumers, investors, and regulators, about the need for businesses to take responsibility for their environmental impacts is another important factor that has influenced CSR investment in environmental sustainability in India. This has led to increased pressure on companies to adopt sustainable business practices and invest in environmental sustainability initiatives.

4.0 Overview of CSR Contribution to Environmental Sustainability in India

There has been a growing focus on environmental sustainability as a key area for CSR investment in India.

- **The Companies Act, 2013:** The formal recognition of CSR practices in India came with the Companies Act, 2013, which made it mandatory for companies with a net worth of INR 500 crore or more, or a turnover of INR 1,000 crore or more, or a net profit of INR 5 crore or more to spend 2% of their net profits on CSR activities.
- **Environmental Laws and Regulations:** The emergence of environmental laws and regulations, such as the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, has led to the development of CSR initiatives focused on environmental sustainability.
- **Sustainability Reporting Frameworks:** The emergence of sustainability reporting frameworks, such as the Global Reporting Initiative (GRI), has also played a role in shaping CSR investment in environmental sustainability in India. Many Indian companies have adopted these frameworks to report on their environmental performance and disclose their sustainability initiatives.
- **Growing Awareness and Concern:** The growing awareness and concern among stakeholders, including consumers, investors, and regulators, about the need for businesses to take responsibility for their environmental impacts has led to increased pressure on companies to adopt sustainable business practices and invest in environmental sustainability initiatives.

KPMG's report states that over 2,500 companies in India spent INR 15,000 crore on CSR activities in the financial year 2018-19, making India one of the leading countries in the world in terms of CSR spending. NASSCOM Foundation's study found that 60% of Indian companies invested in education-related initiatives as part of their CSR activities, and the healthcare sector was another important area of investment, with 40% of companies focusing on healthcare-related initiatives.

According to Nielsen, 73% of Indian consumers are willing to pay more for sustainable products, reflecting a growing demand for sustainable business practices. Several Indian companies have set ambitious goals to promote environmental sustainability. For instance, Tata Steel aims to reduce its carbon emissions by 50% by 2030, and Infosys has committed to becoming carbon neutral by 2040. Indian companies are also investing in renewable energy and adopting circular economy practices as part of their CSR initiatives.

5.0 Literature Review

The concept of CSR has gained significant attention in recent years as a way for businesses to integrate ethical, social, and environmental concerns into their operations and interactions with stakeholders. This literature review aims to examine different perspectives

on the implications of CSR, including the drivers and barriers to its implementation and the effectiveness of mandatory CSR expenditure.

Sarkar & Sarkar, (2015) conducted an analysis of the implications of mandatory CSR expenditure under the Companies Act 2013 in India. They found that the new legislation skilfully balances the interests of firms, their members, and stakeholders with the potential economic implications of required CSR. However, they also pointed out that the success of these new regulations will depend on addressing implementation challenges.

In a similar vein, (Mukherjee & Bird, 2016) explored CSR drivers and barriers, including the attitudes of Indian firms towards CSR and the effects of mandatory CSR expenditure. They found that age, scale, and ownership affect CSR spending attitudes in organizations. They also discovered that making CSR expenditure compulsory did not increase expenditures for many companies, as they avoided it, and their expenditures declined with the vast number for which it was not compulsory.

Venugopal & Krishnan, (2018) conducted a study to understand the employees' and beneficiaries' perspectives on the primary issues that the Bank should prioritize in its CSR efforts. They discovered that differently-abled workers' employment was deemed to be the most crucial issue by employees, while beneficiaries ranked the promotion of education, the welfare of children, and female employment as the most significant topics.

Prasad, Mishra, & Bapat, (2019) examines the relationship between CSR and environmental sustainability in India, using energy intensity as an indicator of sustainability. The authors find a positive association between CSR activities and lower energy intensity, suggesting that firms with strong CSR practices tend to be more environmentally sustainable. Overall, the study provides insights into the potential of CSR to drive sustainable business practices in emerging economies.

Sardana, Gupta, Kumar, & Terziovski, (2020) explores the relationship between CSR sustainability practices and firm performance in an emerging economy. The authors find that firms with strong sustainability practices tend to perform better in terms of financial and non-financial indicators. They argue that sustainability practices can enhance a firm's reputation, attract customers, and improve operational efficiency. Overall, the study highlights the importance of sustainability practices for firms operating in emerging economies, and suggests that these practices can lead to improved performance outcomes.

Arokiaraj, Ganeshkumar, & Paul, (2020) investigates the adoption of an innovative management system for environmental sustainability practices in the Indian auto-component manufacturing industry. The authors find that firms implementing this system have better environmental performance and resource efficiency. The study suggests that innovative management systems can drive sustainability practices in emerging economies.

Singhal, (2021) examines CSR initiatives and practices in the Indian metal and mining sector. The author finds that these firms engage in a range of CSR activities, including community development, environmental sustainability, and employee welfare. The study suggests that CSR is an important aspect of business operations for firms in this sector, and can help to build positive stakeholder relationships.

Dalwadi & Sharma, (2022) investigated people's opinions of CSR and their investment choices in CSR-focused organizations. They found that most respondents believe CSR enterprises are trustworthy, please their clients, and acquire consumer loyalty. The majority of respondents also believe that businesses' actions are directed towards environmental and social well-being and prefer the products and services of CSR organizations. However, while respondents view organizations that contribute to CSR as responsible, they are unwilling to pay extra for their products and services.

Ghosh, (2022) investigates sustainability and CSR practices in the context of Indian ethos. The author argues that CSR and sustainability are deeply embedded in Indian culture, and suggests that firms can leverage this ethos to drive sustainable business practices. The study highlights the importance of understanding local cultural contexts when implementing CSR and sustainability initiatives.

Maheshwari, Gupta, Bhayani, & Gaur, (2023) propose an analytical paradigm for environmental sustainability in the CSR of oil sector public sector undertakings (PSUs) in India. The authors argue that a comprehensive approach to CSR that incorporates environmental sustainability can lead to improved social and environmental outcomes, as well as enhanced financial performance. The study provides insights into the potential of CSR to drive sustainability in the oil sector in India.

While CSR is widely recognized as an important concept in business, there are different perspectives on its implementation and effectiveness. The studies reviewed here highlight the need for addressing implementation challenges, understanding the drivers and barriers of CSR, and prioritizing issues that stakeholders consider important in CSR efforts. These findings provide valuable insights for businesses seeking to integrate CSR into their operations and interactions with stakeholders.

6.0 Objectives of the Study

Following are prime objectives of this research study.

1. To provide an in-depth understanding of CSR and its significance in promoting environmental sustainability in the context of Indian companies.
2. To analyse the top ten companies in India that have made significant contributions towards environmental sustainability through their CSR initiatives.

7.0 Research Methodology

The main objective of this study is to examine the CSR initiatives of Indian companies towards environmental sustainability and identify the top ten companies that have made significant contributions in this area.

To achieve this objective, a purposive sampling method was used to select the top ten CSR-contributing companies in India. A descriptive research design was employed to analyse

the data obtained from secondary sources, namely the annual reports of the respective companies for the fiscal year 2020-21 and using the National CSR Portal.

This study's scope is limited to a specific time and place, and results may vary in other locations and times. The methods and tools employed in this study have certain limitations, which also affect the study's outcomes.

8.0 Findings

The findings of this study reveal the significance of CSR in promoting environmental sustainability among Indian companies. Out of the total CSR contribution of Rs. 21,408.75 crores made by these companies, 9.29% (Rs. 1991.18 crores) was dedicated towards environmental sustainability. This demonstrates a growing recognition among Indian companies of the importance of environmental sustainability and their role in achieving it. The top three companies contributing towards environmental sustainability were Infosys Ltd, ITC Ltd, and Wipro Ltd, with contributions of Rs. 42.05 crores, Rs. 43.73 crores, and Rs.39.09 crores, respectively.

These companies recognize the importance of environmental sustainability and have taken significant steps to incorporate it into their CSR initiatives. The study also revealed that NTPC Ltd contributed the highest amount towards environmental sustainability with a contribution of Rs. 33.41 crores, which represents 7.97% of its total CSR contribution. Other companies such as HDFC Bank Ltd and ONGC Ltd also made significant contributions towards environmental sustainability with contributions of Rs. 7.22 crores and Rs. 2.43 crores, respectively.

The study also highlights the need for more focus on eradicating hunger and poverty, education and skill development, and rural development, which received the highest contributions from CSR initiatives. These areas continue to be important for India's overall sustainable development goals and require continued attention and investment from companies. Overall, the findings of this study suggest that Indian companies are increasingly recognizing the importance of environmental sustainability and are taking concrete steps to incorporate it into their CSR initiatives. However, more work needs to be done to address pressing social and economic issues in India, and companies should continue to invest in these areas as well.

9.0 Data Analysis

The researchers analysed the CSR spending data of these companies and categorized the spending into different areas, including education, healthcare, environment, and other social causes. According to the data presented in Table-2 with graphical presentation, CSR practices in India have gained significant importance over the years, with companies recognizing their responsibility towards society and the environment. The study revealed that the top ten companies in India allocated a considerable amount of funds towards CSR,

ranging from ₹248.99 crores to ₹922crores. However, the study found that the contribution towards environmental sustainability was relatively low among most companies, with Wipro Ltd being an exception with a contribution of 15.70%. Other companies had significantly lower percentages, and some did not allocate any funds towards environmental sustainability despite having a significant CSR budget, such as Tata Consultancy Services Ltd, Tata Sons Private Ltd, and Indian Oil Corporation Ltd.

Table 1: Contribution of CSR in Different Focus Areas

Focus Area of CSR Contribution		CSR Contribution	
		₹ in Crore	In Percentage (%)
A	Eradicating Hunger & Poverty	1306.24	6.10
B	Health Care	3357.02	15.67
C	Water & Sanitation	627.1	2.93
D	Education & Skill Development	5509.26	25.72
E	Women Empowerment	260.15	1.21
G	Environmental Sustainability	1991.18	9.29
H	Animal Welfare	55.82	0.26
I	Armed Forces	50.35	0.24
J	Art & Culture	1120.53	5.23
K	Training To Promote Sports	261.52	1.22
L	Prime Minister's National Relief Fund	839.14	3.92
M	Central Government Funds	1870.74	8.73
N	Rural Development	4173.2	19.48
Total		21422.25	100

Source : <https://www.csr.gov.in/content/csr/global/master/home/home.html>

These findings highlight the need for companies to prioritize environmental sustainability in their CSR activities, given the current environmental challenges faced by the country. Policymakers and company leaders can use these findings to create a more sustainable business ecosystem in India. By increasing their contribution towards

environmental sustainability, companies can not only contribute to a healthier environment but also benefit from positive public perception and brand reputation. The study's call for more attention to be paid to environmental sustainability in CSR practices is crucial, as it can have a significant impact on the overall sustainability of the Indian economy.

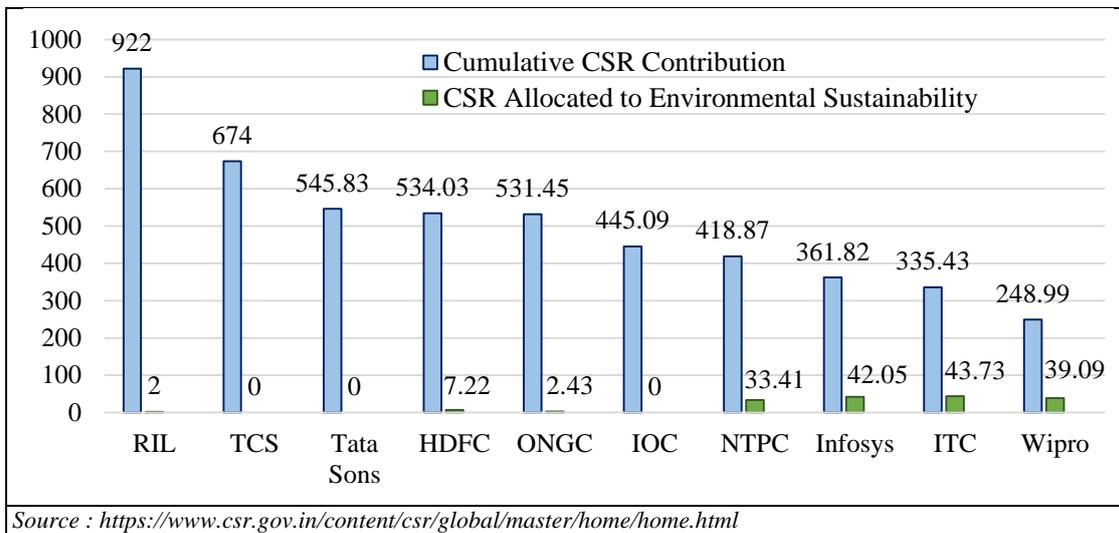
Companies need to collaborate with other stakeholders, such as NGOs and government agencies, to identify and implement sustainable solutions for environmental challenges in India. Overall, the study's findings highlight the need for companies to take a more holistic approach to CSR, focusing not only on social but also environmental sustainability. The study's results can serve as a guide for companies and policymakers in their efforts to create a more sustainable and equitable future for India.

Interpretation: The data shows the distribution of CSR spending by a company or companies in India across various focus areas. The highest percentage of spending was on education and skill development, accounting for 25.72% of the total CSR spending. This is followed by healthcare at 15.67% and rural development at 19.48%. Environmental sustainability received 9.29% of the total CSR spending, which is relatively low considering the current environmental challenges faced by the country. Similarly, women empowerment and animal welfare received very low percentages of CSR spending.

The data can be used by companies and policymakers to identify areas where CSR spending can be increased or decreased to align with the company's values and contribute to sustainable development in India. It highlights the need for companies to prioritize environmental sustainability and gender equality in their CSR practices, given the current challenges faced by the country in these areas. The data can also help in benchmarking and comparing the CSR spending of companies across different sectors and focus areas.

Table 2: Expenditure on CSR and Contribution on Environmental Sustainability

Corporate Citizen in 2020-21	Cumulative CSR Contribution	CSR Allocated to Environmental Sustainability	
	₹	₹	%
RIL	922	2	0.22
TCS	674	0	0
Tata Sons	545.83	0	0
HDFC Bank	534.03	7.22	1.35
ONGC	531.45	2.43	0.46
IOC	445.09	0	0
NTPC	418.87	33.41	7.98
Infosys	361.82	42.05	11.62
ITC	335.43	43.73	13.04
Wipro	248.99	39.09	15.70



Interpretation: The table shows the total CSR contribution and the contribution towards environmental sustainability for the year 2020-21 by the top CSR contributing companies in India. The data highlights that the total CSR spending by the top companies in India ranges from Rs 248.99 crores to Rs 922 crores. The contribution towards environmental sustainability is relatively low among most companies, with some companies not allocating any CSR funds towards environmental sustainability.

Out of the companies listed, Wipro Ltd had the highest contribution towards environmental sustainability at 39.09%, followed by ITC Ltd at 43.73% and Infosys Ltd at 42.05%. It is worth noting that the companies with the highest contribution towards environmental sustainability also allocated a significant percentage of their CSR funds towards this focus area.

The data underscores the need for companies to prioritize environmental sustainability in their CSR activities to address the current environmental challenges faced by the country. The study's findings could inform policymakers and company leaders in their efforts to create a more sustainable business ecosystem in India. By increasing their contribution towards environmental sustainability, companies can not only contribute to a healthier environment but also benefit from positive public perception and brand reputation. The study's results call for more attention to be paid to environmental sustainability in CSR practices, which can have a significant impact on the overall sustainability of the Indian economy.

10.0 Implications

Following are some implications

- The study suggests that companies in India should prioritize environmental sustainability in their CSR activities to address the country's current environmental challenges.

- The top ten CSR-contributing companies in India show significant variation in CSR spending patterns and contribution towards environmental sustainability, highlighting the need for more consistency and uniformity in CSR practices.
- Increasing their contribution towards environmental sustainability presents an opportunity for companies to benefit from positive public perception and brand reputation, as per the study's findings.

11.0 Recommendations

Following are some suggestive recommendations for the policy makers and corporate to achieve sustainable goals in terms of profit, people and planet:

- Allocate sufficient resources towards environmental sustainability and prioritize it in CSR activities, as per the recommendation for company leaders.
- Policymakers should incentivize and encourage companies to focus on environmental sustainability in their CSR activities, as recommended.
- Disseminate the study's findings widely among the business community and policymakers to create greater awareness of the need for more sustainable business practices.
- Set benchmarks for other companies to follow in terms of environmental sustainability by leading through example, as recommended for the top CSR-contributing companies in India.
- Collaborate with other stakeholders, such as NGOs and government agencies, to identify and implement sustainable solutions for environmental challenges in India, as per the recommendation for companies.

12.0 Conclusion

The findings of the study highlight the importance of environmental sustainability in CSR practices in India. The variation in CSR spending patterns and contributions towards environmental sustainability among the top ten CSR-contributing companies in India reflects the need for greater transparency and accountability in CSR spending. To address this, companies need to take a more comprehensive approach to CSR that encompasses environmental sustainability as a key component. This involves integrating environmental sustainability into the company's overall strategy and decision-making processes, rather than treating it as a peripheral concern. Practical steps that companies can take include conducting a thorough assessment of their environmental impact, setting clear goals and targets for environmental sustainability, and allocating sufficient resources towards achieving these goals. This could include investments in renewable energy, reducing carbon emissions, conserving water, and promoting sustainable waste management practices. In addition to these internal measures, companies can collaborate with other stakeholders, including NGOs

and government agencies, to develop and implement sustainable solutions for environmental challenges in India. This not only benefits the environment but also creates opportunities for innovation, growth, and long-term sustainability. Policymakers can also play a vital role in encouraging and incentivizing companies to focus on environmental sustainability in their CSR practices. This could include introducing regulations and guidelines that require companies to report on their environmental impact and allocate a specific percentage of their CSR funds towards environmental sustainability. Overall, the study's findings highlight the need for companies to prioritize environmental sustainability in their CSR activities, as this can have a significant impact on the overall sustainability of the Indian economy. Practical steps such as setting clear goals and targets, investing in renewable energy, and collaborating with other stakeholders can help companies achieve this and create an eco-friendlier business ecosystem in India.

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Factors Affecting Demand of Health and Life Insurance Policy in Kathmandu Valley, Nepal

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ABSTRACT

Human life is full of uncertainty and risk therefore health and life insurance is taken as one of services tool which provides financial supports in case of any unpleasant events happen to them. The research was conducted to find out relationship between dependents and independents variables. The research includes the variables like income level, knowledge, risk attitude, financial protection and social influence. This study aims to provide insight into the factors that influence the market for health and life insurance. The empirical study is focused on quantitative data obtained through a questionnaire survey with a total sample size of 100 people. The study found that, demographic factors such as age, income, occupation, education background have significance association with the demand of health and life insurance policy in Kathmandu. The research also shows that, many health and life insurance policy holders demand the insurance policy for the financial protection. Financial protection is more relevant factor for demanding health and life insurance policy in Kathmandu valley.

Keywords: *Insurance; Risk management; Social security; Endowment; Policy.*

1.0 Introduction

The concept of insurance was originated back to the ancient world in order to protect people from various risks likes' life and properties. Around 100 BC, the origins of concept of life insurance can be traced in ancient Rome. A Roman military leaders, created a burial club among his squad, for the event of the unexpected death of a club member, the others members would pay for the funeral expenses. Similarly in 600 BC, the Greeks and Romans formed the first types of life and health insurance with their lenient societies. These societies used to provide support and care for families of defunctfamily members. Such societies continued for centuries in many different areas of the world and included funerary rituals. In the 12th century, insurance was introduced in Anatolia, with the policy that if any merchants in the region were robbed, the state treasury would compensate them for their losses. After the Great Fire of London in 1666, which destroyed a third of the city, the idea of modern insurance was born. Nepal's first insurance firm, Nepal Mal Chalani Tatha Beema Adda, was established in 2004 B.S.

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The business was established under the full ownership of Nepal Bank Limited in the beginning. The company was renamed Nepal Insurance and Transports Company Limited in 2016, and then Nepal Insurance Company Limited in 2048 B.S. to run and manage the non-life insurance business. The Nepalese government founded the "Rastriya Beema Santhan" with a capital of ten million rupees on the 1st of Poush 2024 B.S. The company started out as a non-life insurance company, but in the first Poush of 2025 B.S., it was renamed Rastriya Beema Santhan Act 2025 B.S. Since falgun 7, 2029 B.S., Rastriya Beema Santhan has operated a life insurance company in Nepal.

Insurance can be defined as the means, which provide financial protection against human life and financial loss of properties. It is the form of risk management against the risk of a contingent or uncertain damages or loss of human life and properties. An entity which provides insurance is known as an insurer whereas a person or entity who buys insurance is known as policyholder. Insurance is the legal contract between insured and insurer in order to provide the financial compensation against the human life and properties.

1.1 Statement of problem

Health and Life Insurance is instrument of financial security and it is also the part of financial planning. It provide financial relief against uncertain death, sickness or accident that may result in disability (permanent or temporary). In the 21th century, health and life insurance in world is growing rapidly. However, there are majority of Nepalese even not taken health and life insurance policy. That whys this study is conducted to figure out, what factors does motivate, guide, or influence the people to purchase the health and life insurance policy.

1.2 Objectives of this study

The primary objective the study are:

- To identify determinants or factors affecting or influence the demand for health and life insurance policy in Kathmandu valley.
- To analyze the impacts of different variables on people of Kathmandu valley for demand of health and life insurance policy.
- To evaluate and analyze the factors which influence the demand of health and life insurance policy in Kathmandu valley.

2.0 Review of Literature

In Nepal, the cost of health care is very high. In Nepal, out-of-pocket healthcare spending accounts for 55.4 percent of total health spending. High out-of-pocket healthcare costs are a significant impediment to achieving universal health coverage, which is an explicit goal of the United Nations' Sustainable Development Goals. Health insurance (HI) is a tool for decreasing out-of-pocket medical expenses (Paudel, 2019)

Risk management is a process to manage future uncertainty which is called risk. In other words, it is a systematic way of minimizing the future loss by proper planning in handling risks. Risk management is general management functions that identify asses and address the cause and effect uncertainty and risk on an organization It deals with every aspects of risk that can happen in future by identifying, analyzing, and handling the possible consequences. Risk management plays a key role in any business (Aryal, 2017).

Life insurance may be a contract of utmost honesty. The insurance firm should be willing and prepared to disclose each info regarding the contract and also the life assurance insured desires to undertake. Likewise, the insured ought to be truthful to disclose all the relevant info the insurance firm desires so as to form the contract valid and legal (Nkengmenche, 2020)

Life insurance begins once a private fill's out associate form. This form collects every bit of knowledge concerning you, your life-style, your medical and case history and risk factors which will apply to you. This info is being collected associated assessed by the no depository financial institution to grasp your life through an underwriting method. The underwriting can choose the probability and therefore the frequency of dying throughout the amount of the amount and therefore the premium the insured has to pay (Nkengmenche, 2020).

Cost of insurance is that the minimum needed quantity of premium payment necessary to take care of a lively policy that carries with it many things place together; administration policy, mortality charges and alternative direct expenses necessary keep the policy active. value of insurance policies varies supported the eligibility, the age of the customer, and therefore the quantity of risk insured (Nkengmenche, 2020).

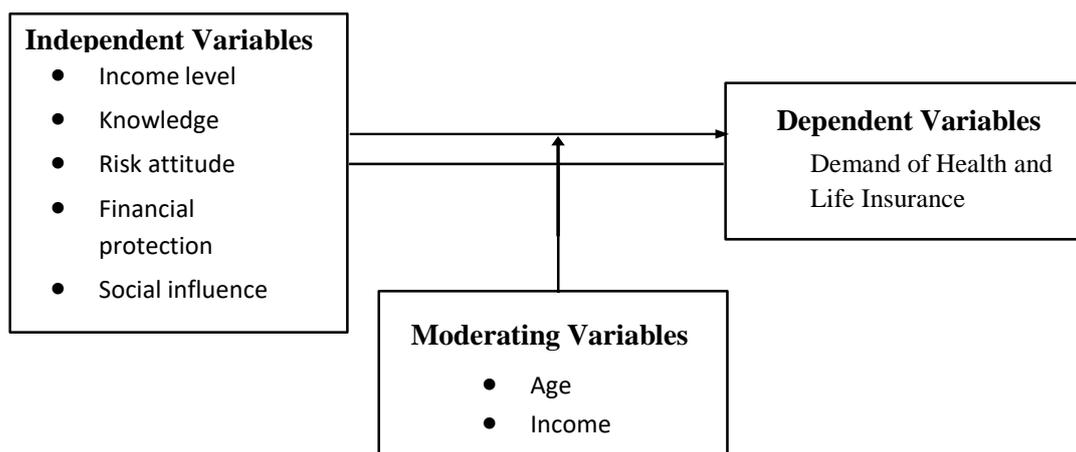
All corporations agreed that COVID-19 has had associate operational economic impact on them, and that they conjointly united that they weren't 100% ready for the pandemic. They were but optimistic of extant the pandemic and hopeful of an undefeated reclaim. Corporations concern that existing product with guarantee rates are possible reaching to be unable to recoup losses as a results of COVID-19. They believe that even wherever rates are annually reviewable, it'll in all probability not be possible to recover those losses in future premiums. Concerning new product, very little has been done to anticipate the impact COVID-19 can cause. All the insurers were of the read that regular payment savings can defend a number of their assets, however several insurance corporations had very little or no regular payment (Babuna et al., 2020).

One of the key issues that need to be addressed from the beginning is medicine policies and practices for the implementation of health insurance. This has to be clarified to address the concern of the equity in access to quality drugs. These issues of equity and quality of drugs have remained major challenges on implementation of insurance scheme. Regular monitoring and periodic evaluation of use of medicines is important to find that there is improvement of buying insurance by public, healthy competition between service providers (Kandel, 2018).

3.0 Research Methodology

3.1 Research design

Figure 1: Conceptual Framework



Dependent Variables: In this study of research the dependent variables are demand of health and life insurance in Kathmandu valley.

Independent Variables: In this study of the research the independent variables are level of income, knowledge, risk attitude, financial protection and social influence.

Moderating variables: In this particular research study the moderating variables are Age, Income, brand reputation, policy Benefits and awareness.

3.2 Research hypothesis

H1: Risk attitude has no significant relationship on demand of health and life insurance in Kathmandu valley.

H2: Financial protection of health and life insurance has no significant relationship on demand of health and life insurance in Kathmandu valley.

H3: Income level has no significant relationship on demand of health and life insurance in Kathmandu valley.

H4: Knowledge has no significant relationship on demand of health and life insurance in Kathmandu valley. H5: Social Influence has no significant relationship on demand of health and life Insurance in Kathmandu valley.

3.3 Sources of data

The target respondents are selected from the five life insurance company of Nepal in which some of respondents are from others life insurance of Nepal. 22 respondents are selected from Nepal Life Insurance Company, 15 policyholders are selected from Rastriya

Beema Sansthan, and Similarly 20 respondents are selected from National Life Insurance Company. 17 respondents are selected from Asian Life Insurance Company limited. 13 numbers of the policyholder are selected as a sample from Citizen Life Insurance Company. The remaining respondents are from various others Life insurance Company of Nepal such as Sanima Life Insurance, Prime Life Insurance Company, Prabhu life Insurance Company and others. Under this study, the sample sizes occupied 100 sets questionnaires in which people Kathmandu valley are targeted.

3.4 Methods and tools of analysis

Both descriptive and inferential statistical methods are used to manage and interpret data. MS Excel and SPSS software were used to analyze the results. The data obtained from the respondents was tabulated and calculated using Microsoft Excel and SPSS.

4.0 Analysis and Discussion

4.1 Reliability and validity

A Cronbach alpha coefficient of more than 0.6 is considered accurate and valid.

Table 1: Cronbach's Alpha

Variables	Cronbach's Alpha	Number of items
Income Level	0.714	4
Knowledge	0.801	4
Financial Protection	0.713	4
Social Influence	0.776	4
Risk Attitude	0.729	4

The above table 1 shows that reliability and validity of the independent variable apply for the research work. Cronbach alpha coefficient values greater than 0.6 are considered accurate, and all of the variables in the table have values greater than 0.6. As a result, the data is trustworthy for further investigation.

4.2 Gender of respondents

Table 2: Respondents Classified by Gender

Gender	Number of Responses	Percentage
Male	57	57%
Female	43	43%
Total	100	100%

4.3 Age of the respondents

Table 3: Respondents Classified by Age

Age	Number of Responses	Percentage
Below 20	3	3%
20-30	75	75%
31-40	12	12%
40 and above	10	10%
Total	100	100%

4.4 Marital status of respondents

Table 4: Respondents Classified by Marital Status

Marital Status	Number of Responses	Percentage (%)
Married	39	39%
Unmarried	61	61%
Total	100	100%

4.5 Educational background of respondents

Table 5: Respondents Classified by Educational Background

Education background	Number of Responses	Percentage
Secondary	3	3%
Higher Secondary	16	16%
Bachelor and Above	81	81%
Total	100	100%

4.6 Annual income of respondents

Table 5: Respondents Classified by Annual Income

Annual Income	Number of Responses	Percentage
1	47	47%
2	24	24%
3	29	29%
Total	100	100%

4.7 Number of insurance policy hold by respondents

Table 6: Respondents Classified by Number of Policy Hold

Health and Life insurance policyhold	Number of Responses	Percentage
One	84	84%
Two	14	14%
Three	1	1%
More than 3	1	1%
Total	100	100%

4.8 Annual premium paid respondents

Table 7: Respondents Classified by Annual Premium Paid

Annual Premium	Number of Responses	Percentage
Below RS 10000	29	29%
RS 10000- 30000	28	28%
RS 30000-60000	22	22%
RS 60000-100000	11	11%
Above RS 100000	10	10%
Total	100	100%

4.9 Types of insurance policy holding by respondents

Table 8: Respondents Classified by Types of Insurance Policy Hold

Types of Insurance Policy	Number of Responses	Percentage (%)
Medical risks cover	20	20%
Saving/ Annuity	17	17%
Critical Illness	6	6%
Life Insurance	57	57%
Education Insurance	0	0%
Total	100	100%

4.10 Descriptive statistic of independents variables

Respondents were asked to use the Five Point Likert-Scale responses to demonstrate their perceptions with the statements in the questionnaires regarding the factors which influence the demand for health and life insurance policies. The descriptive statistics of independents variables are as follows.

4.11 Descriptive statistic of income level

The table below shows the mean and standard deviation of each statement's ratings. There are four Statements that make up the variable Income standard.

Table 9: Descriptive Statistics of Income level

Statement	Minimum	Maximum	Mean	Std. Deviation
I will place portion of my monthly income as health and life insurance premium.	1	5	3.80	1.054
Once income increases I will demand more health and life insurance.	1	5	3.61	1.004
I will buy health and life insurance regardless of how much income I earn.	1	5	3.69	1.042
My primary commitment is onhealth and life insurance	1	5	4.04	1.024
Weighted Average	1	5	3.785	1.031

The average mean score is greater than 3 i.e. (3.785) which show that level of income is factors which influence for the demand of health and life insurance policies in Kathmandu Valley.

4.12 Descriptive statistic of knowledge

Table 10: Descriptive Statistics of Income Level

Statement	Minimum	Maximum	Mean	Std. Deviation
Knowledge of insurance protection is one of the factors that influence me on health and life insurance policy demand	1	5	3.90	.759
I am very confident that I have enough insurance knowledge which incentives me to purchase on health and life insurance policy.	1	5	2.94	1.162
I am very comfortable to give advice to friends and family members on the insurance product that will suit their needs and is worth buying.	1	5	3.22	.949
I prefer to have a professional advice about insurance products before purchase health and life insurance.	1	5	3.84	1.126
Weighted Average	1	5	3.475	0.999

The average mean score is greater than 3 i.e. (3.475) which show that knowledge and Awareness about benefits of insurance is factors which influence for the demand of health and life insurance policies in Kathmandu Valley.

4.13 Descriptive statistic of financial protection

Table 11: Descriptive Statistics of Income Level

Statement	Minimum	Maximum	Mean	Std. Deviation
I feel that guaranteed death benefits are the critical design element.	1	5	3.72	.817
I am a bread winner in family.	1	5	3.40	1.198
I will purchase insurance to avoid out of pocket health care expenditure.	1	5	3.84	1.080
I have a mortgage on hand and I purchase health and life insurance topaid off in the event after I death.	1	5	3.56	1.018
Weighted average	1	5	3.63	1.028

The average mean score is greater than 3 i.e. (3.63) which show that sense of financial protection is factors which influence for the demand of health and life insurance policies in Kathmandu Valley.

4.14 Descriptive statistic of risk attitude

Table 12: Descriptive Statistics of Income Level

Statement	Minimum	Maximum	Mean	Std. Deviation
I am risk averse person.	2	5	3.80	.696
Health and Life Insurance provide a feeling of financial safety.	2	5	4.09	.767
Pass sickness experience on me and people around will drive me to purchase on health and life insurance.	1	5	3.81	1.022
My occupation will influence my demand on health and life insurance	1	5	3.72	.877
Weighted Average	1.5	5	3.855	0.8405

The average mean score is greater than 3 i.e. (3.855) which show that Risk attitude is factors which influence for the demand of health and life insurance policies in Kathmandu Valley.

4.15 Descriptive statistic of social influence

Table 13: Descriptive Statistics of Income Level

Statement	Minimum	Maximum	Mean	Std. Deviation
The decision on purchasing health and life insurance is influence by my family and friends.	1	5	3.82	.716
I will purchase health and life insurance when my friends purchase.	1	5	3.79	.924
Health and life insurance demand is cause by word-of-mouth about the benefit.	1	5	3.96	.777
I buy health and life insurance is due to the recommendation from my friends.	1	5	3.95	.968
Weighted Average	1	5	3.88	0.84625

The average mean score is greater than 3 i.e. (3.88) which show that social influence is factors which guided and motivate for the demand of health and life insurance policies in Kathmandu Valley.

4.16 Regression analysis of variables

Based on the analysis of independents variables, the following regression has been developed. Demand of health and life insurance = $-.050X_1 + 0.269X_2 + 0.076X_3 + 0.356X_4 + 0.312X_5$. Where

- X1 = Income level
- X2 = Knowledge
- X3 = Risk attitude
- X4 = Financial protection
- X5 = Social influence.

Table 14: Regression Analysis of Variables

	Beta	T-value	Sig.	VIF
(Constant)	5.752	8.885	0.00	
Income level	-.050	.417	.678	1.860
Knowledge	.269	2.094	.039	1.391
Risk attitude	.269	.450	.654	1.823
Financial protection	.356	2.830	.006	2.001
Social influence	.312	1.99	.049	1.562
R-square	0.290			
F	7.687			
Sig	0.100			

The above regression analysis explain that there is significance relationship between social influence and demand of health and life insurance policy. P-value is 0.049 which is less than significance level that is (0.05). It represent Ho5 is accepted. By the overall analysis of regression of independents variables it conclude that financial protection is most influencing factors. After that knowledge is social influence is influence factor for demanding health and life insurance policy in Kathmandu valley.

5.0 Summary of Hypothesis

Total five hypotheses were investigated in this research study. Three of the five hypotheses were accepted and give an important result. At the 5% level of significance, the relevant p-value is less than 0.05. The data was analyzed, and the relationship between the independent and dependent variables, as well as their effects, was determined. The following table summarizes them.

Table 15: Summary of Hypothesis

Hypotheses	Remarks
H01: Income level has no significant relationship on demand of health and life insurance in Kathmandu valley.	Rejected
H02: Knowledge has no significant relationship on demand of health and life insurance in Kathmandu valley.	Accepted
H03: Risk attitude has no significant relationship on demand of health and life insurance in Kathmandu valley.	Rejected
H04: Financial protection has no significant relationship on demand of health and life insurance in Kathmandu valley.	Accepted
H05: Social influence has no significance relationship on demand of health and life insurance in Kathmandu valley.	Accepted

5.1 Correlations between the Independent and Dependent variables

Table 16: Correlation of the Variables

Variables	Demand Avg.	Income Avg.	Knowledge Avg.	Financial protection Avg.	Risk attitude Avg.	Social influence Avg.
Demand Avg.	1					
Income Avg.	.254* .011	1				
Knowledge Avg.	.045 .659	.478** 0.000	1			
Financial protection Avg.	.453** .000	.538** .000	.338** .001	1		
Risk attitude Avg.	.317** .001	.538** .000	.325** .001	.612** .000	1	
Social influence Avg.	.432** .000	.423** .000	.071 .484	.535** .000	.477** .000	1

*. Correlation is significant at the 0.05 level.

Income and insurance demand have a correlation coefficient of 0.254. Income has a favorable and statistically meaningful relationship with insurance policy demand, with a p-value of 0.011, which is smaller than the level of significance (0.05). It implies that changes in income have an effect on health and life insurance demand. Knowledge and insurance demand have a correlation coefficient is 0.045, with a corresponding p-value of 0.659, which is greater than the level of significance (0.05). Knowledge has no positive and statistically meaningful relationship with insurance policy demand. It seems that knowledge has no impact on the demand for health and life insurance.

Financial protection has a positive and statistically meaningful relationship with insurance policy demand, with a correlation coefficient of 0.453. The resulting p-value is 0.000, which is less than the level of significance (0.05). It implies that financial protection influence for health and life insurance in Kathmandu valley. Risk attitude and insurance demand have a correlation coefficient of 0.317. Risk attitude has a favorable and statistically meaningful relationship with demand for insurance policies, with a p-value of 0.001, which is less than the level of significance (0.05). It shows that risk attitude has an effect on health and life insurance demand in the Kathmandu Valley. Social influence and insurance demand have a correlation coefficient of 0.432. Social influence has a favorable and statistically meaningful relationship with demand for insurance policies, with a p-value of 0.000, which is less than the level of significance (0.05). It shows that social influence leads to demand for health and life insurance policy in Kathmandu valley.

6.0 Conclusion

The primary goal of study is to determine the determinant factors that influence health and life insurance demand, as well as the existence of a significant relationship

between independent variables and the dependent variable. The findings of this study show that risk attitude, financial protection, and social influence are three key factors that influence the demand for health and life insurance in Kathmandu valley. However, the variable knowledge and income level does not display the expected positive sign, indicating that further research is needed to confirm the connection between demand of health and life insurance demand. Furthermore, there are limitations in this report, and it is hoped that future studies will be able to address these limitations by recommendations or other methods.

Finally, five independent variables were examined in this study income level, knowledge of health and life insurance, similarly financial security, risk attitude, and social influence. This indicates that these factors have less or more effect on the demand for health and life insurance policies in the Kathmandu Valley.

6.1 Recommendation

The researcher made the following suggestions and recommendations to other researchers. The key recommendation is that five determinants of health and life insurance demand should be properly enhanced.

As the regression results show, financial protection, risk attitude, and social influence stand out as significant and highly determinant factors in influencing people's demand for health and life insurance when compared to the other variables. As a result, insurance services providers companies must raise awareness about the benefits of health and life insurance. Similarly insurance companies should try to make potential relationship with exiting customer so that they would be become the medium for influencing their family and friends recommend them to get insurance policy.

According to the researcher, such an area requires further analysis, which should be done with a broad sample size so that the health and life insurance industry gets more information for expansion and growth similarly. Insurance companies should also calculate their consumer expectations toward identifying determinants factors of life and life insurance business. Insurance firms should conduct a national level study to build a holistic image of factors influencing demand for health and life insurance from the viewpoint of customers, which will provide more relevant knowledge that will contribute to better operation and management of the insurance sector in Nepal. Last but not least, further potential researchers should identify other factors that may affect the demand for health and life insurance. As a recommendation for potential researchers to consider on this variable that could affect the purchase decision or demand of health and life insurance policies, the further can be medical costs, pre-mature and insurance company trustworthiness.

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The Impact of Technology on an Omnichannel Apparel Physical Retail Store: Does Generation Matter?

*V .Shanthan Kumar**

ABSTRACT

Due to the changing tastes and preferences of customers, retailers today are increasingly adopting Omnichannel strategy which aims at providing a superior customer experience irrespective of the channel used. This has caused many brick and mortar stores to open an online store and vice versa. In such a situation technology plays a critical role in providing an integrated, seamless experience to the customers across channels. In that regard this paper tries to examine the role of in store technology, fitting room technology and Customers own devices on the purchase intention of the consumer. The study further investigates the moderating effect of Generation across two generation cohorts Gen X and Gen Z, on the said relationship. Data was collected using a structured questionnaire and 210 valid responses were obtained. The results showed that Generation only partially moderates the relationship as seen in the case of fitting room technology and purchase intention .Smart PLS 4.0 was used for data analysis and PLS –Multi Group Analysis (PLS – MGA) was used for moderation analysis. The results obtained and implication of the study are discussed.

Keywords: *Apparel; Generation; Moderation effect; Omni channel retailing; Purchase intention.*

1.0 Introduction

The omni channel approach has become a significant trend in recent years, with the fashion industry being one of the earliest adopters. It involves providing customers with a seamless shopping experience across various channels and allowing them to interact with the brand anytime, anywhere. This approach breaks down the barriers between physical and virtual stores (Beck and Rygl, 2015; Lazaris and Vrechopoulos, 2014; Levy et al., 2013; Melero et al., 2016; Rigby, 2011; Verhoef et al., 2015)., and it has both practical and theoretical implications, as well as impacts the consumer behavior. Advances in technology, such as social media, mobile, smart TV, and smartwatches, have led to the emergence of new retail formats (Juaneda-Ayensa et al., 2016; Melero et al., 2016; Piotrowicz and Cuthbertson, 2014; Verhoef et al., 2015). Which are transforming the buying process and changing consumer habits.

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The need of the hour is to integrate the various channels seamlessly so that they provide a uniform uninterrupted experience. This scenario warrants that the physical and virtual stores complement each other and use interconnected technology, like the physical store apart from acting as a retail experience theatres should also provide the interactivity and convenience and seamless navigation of the online store, on the other hand the online store should provide the multisensory experience of the physical store. (Alexander and Alvarado, 2017).

There is a growing interest among both practitioners and scholars in implementing new technologies in physical stores to improve the shopping experience by increasing information richness and customer perception of innovation. However, while examples of integrating interactive technologies in physical stores are increasing, there is still a lack of empirical research on the role of technology in an omnichannel retail environment (Brynjolfsson et al., 2013; Cook, 2014; Papagiannidis et al., 2013; Verhoef et al., 2015; Weill and Woerner, 2015). This study aims to identify which omni retailing technologies matter most to consumers and how their intention to use such technologies affects their purchase intention in an omnichannel apparel retail environment. Additionally, the study analyzes the moderating effect of generation on the relationship between intention to use these technologies and purchase intention, as there is a gap in empirical research in this area. Here the customer were divided into two cohorts one of GenX and Gen Z. There is a huge gap as far as technology adoption is concerned between the two generations. Gen X customers have some paucity in adopting technology and increasingly dependent on Gen Z to help them, on the other hand generation Z are comfortable with technology, Gen Z customers are more in to the technology as they see it as a part of their life as they are born in to it. Some previous studies have examined generation based differences in attitudes towards the use of information and communication technologies (ICTs) and online contexts, but no empirical studies have analyzed generations moderating role on purchase intention in an omni channel environment.

2.0 Literature Review and Hypothesis

Over the past two decades, retailing has evolved significantly. In the past, retailing was mainly associated with physical stores, but with the emergence of e-commerce, a new channel viz the online retail was created, leading to the concept of multichannel retailing (Verhoef et al., 2015). However, this approach created a division between physical and virtual stores and made them to function in individual Silos without any interconnectedness among the channels, leading to negative customer experiences (Beck and Rygl, 2015). The next stage in this evolution is the omnichannel, which merges offline and online channels to provide customers with a seamless experience. With all channels connected, customers can start and finish their shopping journey in different channels, enhancing convenience and engagement. The omnichannel approach is built on the principle that retailers should prioritize their customers and their shopping experience and not focus only on the channel of delivery. It's a new way of wrapping an old idea that the retailers should establish a connect with the

customers and tell a unique brand story and enhance customer experience. (Gupta, Lehmann, and Stuart, 2004; Hansen and Sia, 2015; Shah et al., 2006). The emergence of channel agnostic customers, i.e. those customers who do not care from which channel they buy as long as they get the product they want, has forced the retailers to provide the same brand experience, price and convenience irrespective of the channel used. (Dholakia et al., 2005; Eaglen, 2013; Juaneda-Ayensa et al., 2016; Zhang et al., 2010).

2.1 Role of in- store technology

In store technology has taken various shapes and forms since the beginning of retailing, in this arena of omnichannel retailing technology has played a key role in ensuring seamless delivery of products and has created an integrated experience between channels (Piotrowicz and Cuthbertson, 2014). Although online stores have grown in numbers physical stores still remain relevant as they act as an experience museum and act give multisensory satisfaction to the customers. The customers are able to touch and feel the merchandise and are able to gain immediate possession of the product. They also aid in developing long lasting buyer –seller relationships. (Blázquez, 2014).

In addition to being a physical location where customers can physically interact with products, the brick-and-mortar store also serves as a venue for providing customers with immersive and engaging experiences, regardless of whether they use the physical or digital channels to make purchases (Avery et al., 2012; Medrano et al., 2016). As a result, technology is transforming the store experience and layout by facilitating activities such as “click-and-collect,” “in-store ordering,” “home delivery,” “online ordering and in-store return,” and other combinations of online and traditional retailing practices that simplify the shopping process (Bell et al., 2014)

Retailers are increasingly adopting interactive in-store technologies to improve the shopping experience for consumers. These technologies include virtual fitting rooms, augmented reality, digital signals, tablets, automatic checkouts, beacons, and retail apps (Choi and Cho, 2012; Poncin and Ben Mimoun, 2014; Burke, 2009; Rigby et al., 2012; Zhu et al., 2013; Shankar, 2014; Pantano and Priporas, 2016). According to Poncin and Ben Mimoun (2014), the experiential aspects of these technologies can attract more shoppers to physical stores, thereby reducing the boundaries between traditional and online atmospherics, and potentially increasing sales. Additionally, Pantano (2016) and Renko and Druzijanic (2014) found that offering more services, while enriching traditional ones, can increase consumers’ purchase intention. Verhoef et al. (2009) identified the impact of technology on the shopping experience as a critical research question.

The term in store technology primarily means the technology used inside the store by customers which may include hand held devices like I-Pads, tablets or different digital devices that help customers perform various actions like self-check out, self-scanning of products, analyzing the cost of the purchase basket, gadgets to locate merchandise variety and size inside the store etc. On the other hand fitting room technology enables customers to try

on products virtually, without physically interacting with the items. This technology utilizes augmented reality (AR) or artificial intelligence (AI) to overlay the product on live imaging of the customer, allowing them to assess the size, style, and fit of the item before making a purchase decision (Pantano and Viassone, 2014). These are very critical as most of the purchase decision are made inside the fitting rooms. (Beck and Crié, 2015).

In the light of the literature showing that technology attracts the customers to the store and creates a positive intention to purchase we formulate the following hypothesis that:

H₁: The intention to use in-store technology positively affects purchase intention of the customer.

H₂: The intention to use fitting-room technology positively affects purchase intention of the customer.

2.2 The role of customers own devices

In an omnichannel retail environment, customers' personal devices such as smartphones, smartwatches, and wearables play a significant role. Studies have shown that mobile technology has become an essential tool for consumers before and during the shopping journey (Pantano and Priporas, 2016; Zagel et al., 2017). The convenience and portability of mobile devices allow consumers to search and shop anytime and anywhere (Gao et al., 2015; Rodríguez-Torrice et al., 2017). Customers now prefer to use their own devices to search for information about products, scan QR codes, compare prices, check product ratings, and seek advice (Shankar, 2014; Verhoef et al., 2015; Voropanova, 2015). Furthermore, social media platforms enable consumers to share their feedback about products and brands in real-time (Deloitte, 2015).

Modern consumers are “hyperconnected” and expect a seamless experience across different channels, touchpoints, and platforms (Cook, 2014; Frazer and Stiehler, 2014; Piotrowicz and Cuthbertson, 2014; Van Bruggen et al., 2010). Customers use their personal devices in stores and beyond to engage with retailers and access information. They rely on their devices as an integral part of the shopping experience, viewing them as part of a larger ecosystem of channels and touchpoints.

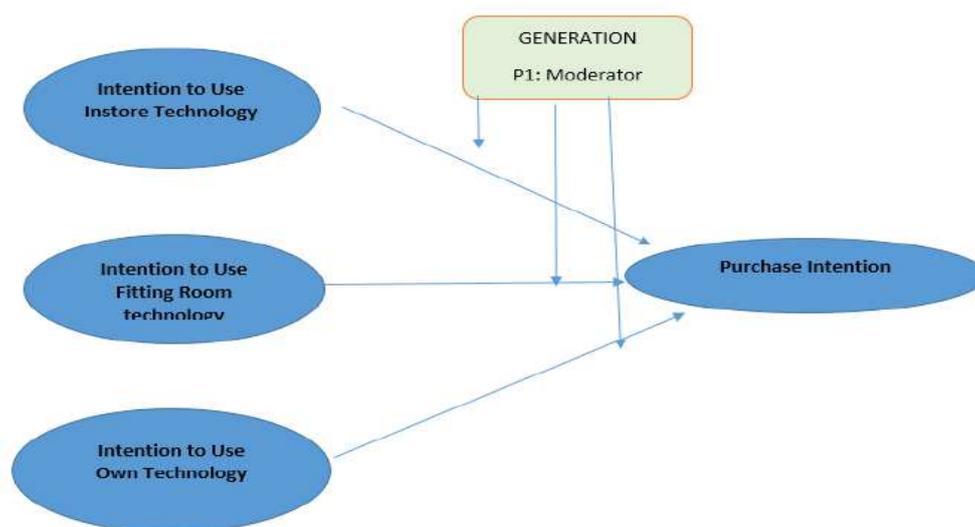
Consumer behavior such as webrooming and showrooming presents challenges for retailers. These practices vary depending on the channel that customers use to search for information and compare alternatives before making a purchase. (Flavián et al., 2016; Wolny and Charoensuksai, 2014). Verhoef et al. (2007) previously identified webrooming as the primary omnichannel behavior. The emergence of smartphones in stores has given rise to showrooming, which refers to the use of personal devices in-store for tasks such as comparing product features or finding offers (Babin et al., 2016; Rapp et al., 2015). Recent research suggests that customers are increasingly relying on smartphone searches instead of traditional methods (Bachrach et al., 2016). This trend is attributed to the inclusion of features in mobile apps that simplify and improve the customer journey. This has also considerably reduced the role of sales people.

Parise et al. (2016) found that “72 per cent of consumers said that a relevant mobile offer delivered to their smartphone while shopping in a store would significantly influence their likelihood to make a purchase.”, whereas Rippé et al. (2017) have demonstrated that in-store mobile searches increase the propensity of in-store purchase intention. Keeping the above statement in view, the third hypothesis is proposed which is H3: Usage of customers own technology (like mobile phones, tablets) in store positively increases their purchase intention

2.3 Moderating role of gender

The study proposes to test the moderating role of generation between two generations (Gen X and Gen Z). Generation X, born between 1965 and 1979 are not tech savvy and comfortable with authority. Generation Z is the group of people born between the mid-1990s and the early 2000s (typically after 1995) who are the children of Gen X or later Baby Boomers. They share similar traits with Generation Y, including technological prowess and comfort in a globalized world. However, Generation Z is likely to have distinct consumer behaviors due to experiencing economic recession during their formative years. Four consumer trends that will likely define Generation Z are a focus on innovation, a preference for convenience, a desire for security, and a tendency towards escapism. (Stacy wood, 2016). Though there have been studies using generation as a moderator in the area of Innovation (WA Srisanthan et al, 2022) in the area of green buying behavior (Sharma et al, 2022) and mobile banking usage and gamification (G Cera et al 2020) there is really paucity of literature measuring the moderation effect of generation on the role of technology and purchase intention in the omnichannel fashion context. Given the limited literature on the effect on generation the following hypothesis is formulated and tested.

Figure 1: Proposed Conceptual Model



P1. Generation plays a moderating role in the positive relationship between the antecedent variables and purchase intention.

Based on the above hypothesis we develop the following model, a similar model was used by (Ana Mosquera, Cristina Olarte-Pascual, Emma Juaneda Ayensa and Yolanda Sierra Murillo, 2017) but here we intend to measure the moderating effect of generation as against the previous authors who have measured the moderating effect of Gender.

3.0 Research Methodology

The research was performed on three omni channel apparel retailers in Hyderabad who had their online and off line presence .Apparel was chosen because it is among the top ten categories to be influenced by instore technology (Delloitte 2016).

3.1 Measurement instrument and selection of scales

The questionnaire prepared by Ana Mosquera et al 2017 was adopted for measuring the various constructs mentioned in the conceptual model, who inturn adapted the scales from Burke (2002) and Lazaris et al. (2015). To measure purchase intention, the scale developed by Pantano and Viassone (2015) was adapted.

3.2 Data collection

The questionnaire was administered to 248 shoppers from regular visitors of the omni channel apparel stores selected in the city of Hyderabad, Only respondents belonging to GEN X or Gen Z were allowed to fill the questionnaire .Of the total responses secured 38 responses were invalid and rejected. Of the 210 valid responses 100 were from Generation X and 110 were from generation Z.

4.0 Results

The data was analyzed using SMART PLS 4.0 software for assessing the measurement model and structural model. The Moderation analysis was performed using the PLS, Multi Group Analysis.

4.1 Measurement model assessment

The measurement model was verified for the construct reliability (i.e composite Reliability and Chronbach's Alpha) and convergent validity using AVE values, both these were above the threshold values of 0.7 and 0.5 respectively. The discriminant validity has been assessed using the following criteria. The first criterion is the Fornell–Larcker criterion, which mandates that the root square of AVE for each latent variable should be greater than the correlation with any other latent variable (Fornell and Larcker, 1981).The HTMT criteria was used next and all the values fell below the threshold value of 0.9 .

Table 1: Construct Reliability, Convergent Validity and Discriminant Validity

Construct	CR > 0.7	Cronbach's Alpha>0.7	AVE > 0.5	ST	FT	OT
Gen X						
ST	0.824	0.797	0.609	0.852		
FT	0.932	0.962	0.785	0.713	0.895	
OT	0.812	0.783	0.622	0.721	0.652	0.785
PI	0.741	0.816	0.732	0.744	0.622	0.754
Gen Z						
ST	0.803	0.766	0.662	0.828		
FT	0.840	0.798	0.717	0.586	0.914	
OT	0.815	0.784	0.635	0.625	0.624	0.794
PI	0.946	0.841	0.799	0.618	0.679	0.642

4.2 Structural model assessment

The R² for Gen x was found to be 61.9 and 68.5 for Gen Z on the other hand the Q² value was 0.538 for Gen X and 0.579 for Gen Z.

Table 2: Effect of Endogenous Variables and Support for Hypothesis

Relationship	R2 (%)	Q2	Direct effects	Correlations	p- Value	Hypothesis
Gen X						
	61.9	0.538				
H1: In-store tech. (+) Purchase intention			0.382	0.774	0.000	Supported
H2: Fitting-room tech. (+) Purchase intention			0.152	0.582	0.005	Supported
H3: Own tech. (+) Purchase intention			0.492	0.864	0.000	Supported
Gen Z						
	68.5	0.579				
H1: In-store tech. (+) Purchase intention			0.310	0.678	0.000	Supported
H2: Fitting-room tech. (+) Purchase intention			0.358	0.693	0.000	Supported
H3: Own tech. (+) Purchase intention			0.234	0.672	0.001	Supported

Finally there is a significant effect of In store Technology, Fitting room technology and Intention to use own technology own purchase intention as all the Hypothesis are supported for both Gen X and Gen Z. The results elucidate that own technology has the greatest influence in Gen X customers followed by In store technology and finally fitting room technology. The reason for this could be that the Gen X customers are comfortable using their own devices rather than the devices present in the store as they may not be well aware about their operation. In case of Gen Z however fitting room technology had a predominant effect on the purchase Intention followed by In store technology and own technology.

The reason for this could be that the Gen Z have a totally different perspective on using in-store technology. They prefer to use it to access a wider range of products (ST5), search for specific items or sizes not available in the store (ST3), and avail discounts (ST4). When it comes to using fitting rooms, they are more likely to utilize the technology to seek advice without leaving the fitting room (FT1) and to look for clothing that complements their

existing outfits (FT2). Moreover, they tend to use their smartphones in physical stores only for price comparison (OT2) and to read reviews about the products (OT3).

4.3 Multi group analysis

A multi group analysis was performed with generation as the categorical variable. MICOM analysis was performed prior to PLS –MGA to establish Invariance in the data sets as suggested by (Hult et al., 2008, Henseler et al. (2016)). These procedures involved establishing:

1. Configural invariance
2. Compositional invariance
3. Equality of composite means values and variances.

All the three above variances were established giving a go ahead for MGA Analysis.

Table 3: Multi Group Comparison

Relationship	Gen X Std Beta	Gen Z Std Beta	Path Coefficient Difference	T-Values	P-Values	Sig
ST -> PI	0.382	0.310	0.72	0.101	0.223	n.d
FT -> PI	0.152	0.358	-0.206	0.920	0.003	S.d
OT -> PI	0.492	0.234	0.258	0.415	0165	n.d

n.d - No significant difference S.d -Significant Difference

5.0 Discussion and Conclusions

This research makes a valuable contribution to the study of omnichannel retail by identifying the preferred in-store technologies of omnishoppers and exploring how their intention to use these technologies impacts their purchase decision. With the retail industry becoming increasingly competitive, it is crucial for companies to understand which technologies and omnichannel practices are most appealing to their customers. An omnichannel store combines the benefits of physical and online shopping, providing customers with the opportunity to view and test products in person while also having access to a wider range of products and information online. The omnichannel approach prioritizes the customer experience and aims to facilitate seamless communication between the company and the customer across various channels and touchpoints throughout the shopping journey. This enables customers to interact with the brand through their preferred channels at any given time.

The objective of the study was two fold firstly to examine how instore technology, customers own devices and fitting room technology influence purchase intention, and also to look at the moderating role of generation and see if there is a significant difference between Gen x and Gen z in usage of the above mentioned antecedents .

The study found that the proposed model effectively predicted purchase intention for both Gen X and Gen Z in an Omni channel store, with a 61.5% R² for Gen X and a 68.5 % R² for Gen Z. This supports the notion that consumers' purchase decisions are influenced by their intention to use various digital technologies and practices while in-store. However, the study did not find any significant differences between both the generations on the impact of the antecedents on the dependent variable except for fitting room technology whose value was significant. When analyzing the three dimensions of the model, the lack of significant difference in the other two factors and significance of fitting room technology can be explained by the fact that Gen Z being digital natives are more comfortable with the fitting room technology and know how to leverage it to make decision, which may be lacking in Gen X.

The study's findings have significant implications for retailers. It highlights the importance of physical stores adapting to the changing retail environment to survive. Retailers must ensure that their physical presence adds value in terms of product availability, engagement, service, and overall customer experience. To achieve this, retailers can implement in-store technologies such as automatic checkout, free Wi-Fi, and tablets to enable customers to browse products and place orders. Fitting-room technology is especially crucial because fitting rooms play a vital role in the shopping process. Customers may avoid trying on clothes if they have to go to the fitting room alone or leave the fitting room to find another size. Retailers can address this issue by implementing intelligent fitting rooms or installing tablets to facilitate and expedite the purchase process, encouraging more customers to visit the fitting room and ultimately leading to more sales.

To enhance the in-store experience, it is essential for mobile app developers and retailers to focus on integrating their shopping assistant interface with hardware features that bridge the physical and online world (Lazaris, 2015). By providing the same offers, conditions, and services across both channels, companies can encourage traffic between the online and physical store and prevent free-riding consumer behaviors (Rodríguez-Torrico et al., 2017). This approach caters to both webroomers and showroomers. Webroomers can come to the store already informed about the product and use the technology implemented at the store to complete their purchase, while showroomers can use their own smartphones or devices available at the store to research opinions, prices, or product features before finalizing their purchase (Rodríguez-Torrico et al., 2017). By adopting these strategies, retailers can enhance the shopping experience and encourage customers to make purchases in-store.

To enhance customer engagement and loyalty, retailers should invest in technologies that create a seamless shopping experience across all channels (Cook, 2014; Pantano & Naccarato, 2010). The technology should be relevant to consumers and provide value by solving existing problems, rather than creating new ones (Blázquez, 2014). The Internet of Things presents new opportunities for retailers, such as connecting physical and virtual stores for streamlined inventory management and integrating technology into garments for improved

efficiency (Blázquez, 2014). This technology can also help retailers to create personalized offers in real-time, based on customer data (Blázquez, 2014).

The current research makes a significant contribution to the existing literature on omnichannel retailing by identifying the key technologies and practices that are most relevant for omnichannel customers and exploring the relationship between the intention to use in-store technology and purchase intention. To the best of knowledge, this is the first empirical study in the academic literature that investigates the intention to use in-store technology in a clothing store in India while also examining the potential moderating effect of generations

6.0 Limitations of the Study

First, the analysis is rather general, examining the use of interactive in-store technologies as a general concept. Another lacuna of the study is it looks at the adoption of the in-store technology without considering its cost to the retailer which may reduce its adoption. Apart from these other factors like atmospherics, store ambience, social factors have not been accounted for which might influence the purchase decision. More over the study focused on omni channel fashion stores in Hyderabad which can limit its geographical and cultural reach.

7.0 Scope for Further Research

The model can be used in other geographical locations and cultures to see whether culture or geography impacts the usage of technology in omni channel fashion stores. An attempt can also be made to study the effect of different demographic moderators like age, income, location etc on the same model. Similarly the study may be extended to other product categories as well.

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Business Analysis of Hyperlocal Delivery Start-up: Dunzo

Sai Shreyas Ravva and Rithika Mallavajjala***

ABSTRACT

The study examines Dunzo's growth, marketing strategies, logistical and technological advancements, and how the company meets customer needs. The research utilises flexible, investigative and text analysis approaches to provide insightful information about the company's business model, competitors, and technological integration. The study discusses the positives and negatives of Dunzo's operations, such as marketing, technological integration, and business model. The paper concludes by presenting Dunzo's future plans and providing overall views on the company. This research will benefit small business professionals and those interested in establishing a hyperlocal delivery service by providing an understanding of Dunzo's operations and how to mitigate errors.

Keywords: *Dunzo; Hyperlocal delivery business; Start-up; Funding series; Unique marketing strategies.*

1.0 Introduction

Dunzo, an Indian Company providing delivery services 24/7 founded by Kabeer Biswas, accompanied by Ankur Aggarwal, Dalvir Suri, and Mukund Jha. Its inception was in July 2014. The company was first set up in Bangalore and was expanded to 7 different cities namely: Delhi, Gurugram, Pune, Chennai, Jaipur, Mumbai, and Hyderabad. Introduced as a WhatsApp group, it was developed into an app-based service. Dunzo is the first start-up company to have direct funding from Google. Their tagline says "Sab ke liye Dunzo hai na". Dunzo app is available on the Play Store and App Store. The hyperlocal delivery platform uses Instagram, Facebook, Twitter, Youtube, and LinkedIn to engage with their customers. The on-demand hyperlocal delivery app is the leading platform for connecting customers, partners, and merchants, operating as a three-sided marketplace. Their mission is "to be the logistics layer of every city." Dunzo's vision is "to expand all across the country and emerge as the go-to delivery service provider of each of the cities."

2.0 Products and Services

As a delivery service app, Dunzo helps to create and manage daily tasks by connecting the tasks to its delivery partners who make purchases or fetch items from any store and deliver them to the customers. It tries to complete the task in the least time possible and has a minimum charge for each delivery.

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The 24/7 delivery platform Dunzo provides services like electronic items, laundry, duplicate keys, and repairs. Currently, limited areas are covered under Dunzo's radius. The online marketplace also offers an app-based delivery service that allows customers to send packages to any other customer with a single click. In addition to the ongoing facilities, they set up Dunzo for Business to help companies deliver their products faster, cheaper and better. It is operational in 7 cities across India. Businesses like supermarkets, Kirana stores, restaurants, aggregators, and many e-commerce companies associate with Dunzo for delivering essentials to their customers.

The application platform also provides bike-sharing services to Gurugram as an expansion to their current operation as hyper-local on-demand delivery services. The company went from a WhatsApp group service to make its mark with an Android app, an IOS app, and a Website. Dunzo is also known as the "everything app" which solves the need to get things done and its focus is being swift, dependable, and valiant. The application helps to simplify the usage so that people could place requests, manage payments, and get notified when the delivery partner gets assigned. Dunzo is involved in the B2C, B2B space of the Food and Agriculture Tech, Transportation, and Logistics Tech market segments.

Dunzo Daily is an instant delivery service of the freshest groceries being delivered to your doorstep. Everything from Fruits, Vegetables, Meat, Pet Supplies, and other daily needs are available with free delivery. Dunzo Daily is currently available in Bangalore, Chennai, Pune, and Mumbai. Dunzo for Business offers support to businesses by having features such as live tracking of the products, multiple drop point options, scheduled delivery, live chat support, cash on delivery (CoD), and postpaid billing options. It transports anything from anywhere to the consumer upon their request. This is the company's prime advantage as a chat-based personal management platform. Dunzo for Business (B2B Vertical) consists of almost 6% of the total business. Delivery from local stores accounts for 75% of the business and 25% is from the courier services offered. B2C includes 18% of the courier service whereas B2B includes 7%.

3.0 Customer Base

Dunzo targets anyone using a smartphone; customers who wish to get things delivered to them; market mostly in between the ages 18 to 55 who want to make purchases from any store; people sending packages to their family, friends, and relatives across the city; consumers who order food from their favorite restaurants; merchants having a necessity to deliver their goods to their consumers; restaurants, supermarkets, aggregators, Kirana stores, and many e-commerce companies looking to deliver essentials to customers; individuals traveling to nearby places; a population which uses bike-pooling services and commuters looking for an affordable alternative for cars and autos. In 2014, Dunzo was set up as a WhatsApp group with just 3 customers, 4 months later, it grew close to 10,000 members solely under the management of Kabeer Biswas. The Dunzo team was completing 70 tasks per day as of June 2015. The WhatsApp group service fulfilled 500 orders a day at the end of

2016. The startup went from a partner app to a customer version of the app. The years 2016–17 were spent in setting up the company, building the team, and developing the product. They developed their application in a span of 6 months. Earlier in the year 2018, 40 delivery partners were serving 80,000 transactions per month with minimal promotion and operational expenses. At the end of the same year, they achieved over 1 million transactions with an average of 30,000 transactions per day largely from 4 cities- Gurugram, Hyderabad, Pune, and Chennai.

There was a 2.5X-3X increase in the number of deliveries executed from 2018 to 2019. It had 2 million monthly transactions on its platform. It grew 8X in terms of the number of users in the year 2019 (i.e) Half a million monthly transacting users. Later in the year, the annual active user base is 2.7 million. Dunzo grew 30X as of June 2019. The top 10% of the customers use the app 20 times a month. During the year, Dunzo for business was launched to provide logistics services for retail stores and small businesses.

The annual active user base is doubled from the previous year (i.e) 5.1 million in 2020 serving about 2.5 million deliveries. Due to the shift to e-commerce, customers spent almost 2.82X more in 2020 than what they spent in the first year. Consumers also spent more time on the platform. Due to the surge in popularity during the COVID-19 pandemic, the number of new users increased by 90% with a retention rate between 80%-85%. The number of merchants grew by 19X. The pandemic increased the volume of deliveries by 25%. The growth observed in the year was mainly due to strong organic user demand and gross margin profitability. Dunzo for Business is 10% of the company's overall business. In January 2020, they had 600 merchants which in turn grew to 15,000 in September during the COVID-19 pandemic.

Since the first month of the year 2021, there was a significant 350% increase in medicine orders. The company has 11,000 merchants as of February. Dunzo's organic reach app opens doubled from March. During April, Groceries, food commodities, and fresh harvest had 318% growth in orders. Above 20,000 orders have been placed to the hospitals, an overall 204% growth of orders was observed for the delivery of home-cooked meals, medical aid, and equipment at the end of May. B2B vertical in 2021 grew 2X as they have been working across to deliver essentials. The problem of last-mile is solved by the B2B vertical by providing a last-mile logistics service to the local merchants to sell products to their targeted customers in the hyperlocal areas. Dunzo's D4B showed a significant growth rate of 57% in the last year, and also achieved a 50% increase in profitability per order compared to the previous year. The D4B division allows more than 20,000 merchants to manage their local logistics through Dunzo's platform in 2022. In 2023, the way customers shopped during the festival resulted in a 30 percent rise in orders in important product categories.

4.0 Business Model

Dunzo functions through a hyperlocal delivery business model with an aggregator model as their supply chain. It has extensive sources of revenue and success in the longer run.

Its new dark-store model called Dunzo Daily service offers quick deliveries to customers. Dunzo works based on a two-sided network; customers are on one side of the network and businesses form the other side. It operates as an e-commerce marketplace that connects customers and businesses. It operates through small geographical delivery areas with a radius of 2.5 km, completing tasks in a shorter duration of time.

4.1 Dunzo's sources of income include

- Delivery charges: The customer is charged a minimum of ₹10 for delivery. The prices vary based on the distance and the type of delivery performed.
- Commission: Dunzo levies a fee of 10%-12% of the total delivery costs on the merchant partners. Dunzo for business is initially free for any company, but it charges on the deliveries made. It charges 15% - 30% commission rate from its partner store per order.
- Surge charges: The fares are imposed based on the demand in the specific area. Dunzo benefits from the price hikes during surges.
- Services offered: Fees are imposed on services such as Delivering anything (Groceries & essentials, Documents, Books, Stationery, Medicines, Fruits & Vegetables, Sending packages, Meat & Seafood, Food delivery, Pet supplies, Paan & Alcohol shops, Any store), Bike taxi, laundry, local courier, repairs, electronic items, and duplicate key.
- Commission from delivery riders: During the fiscal year 2021, the number of commissions collected by Dunzo from its delivery riders significantly increased, surging by almost 68% to reach 20.8 crore rupees.
- Income from brand campaigns: The company also earned 1.53 crore rupees from brands as a campaign fee during the same period.
- Warehousing Income: By improving its dark stores, storage facilities, and warehouses, and has spent approximately 18.6 crore rupees on infrastructure during the FY20. As a result of these investments, the company's revenue from warehousing fees significantly increased, rising 17.6 times to 39.6 lakh rupees during FY21.

4.2 Technologies used by Dunzo which make it a hyperlocal business model

- It uses GPS tracking and Google maps as the in-app navigation system
- Cash on Delivery, Dunzo cash, Debit and Credit card, Paypal, Simpl, Net banking, Google Pay, Paytm, and Lazypay powers Dunzo as payment options
- Mobile apps (customers as well as delivery partners) and a website serve as e-commerce platforms
- Dunzo simplifies the user experience by using Artificial Intelligence, chatbots, a data-driven approach, helpdesks, and communication with the service provider through a chatbox
- Supply chain management, customer relationship management, and supplier relationship management are run efficiently by Dunzo
- Logistics and shipping are essential in Dunzo's business model
- Using automation and IoT tech applications like smart baskets to offer quick commerce

Table 1: Business Model Canvas

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
<ul style="list-style-type: none"> Reliance Retail PepsiCo Dukaan Leadsquared Google Pay Cipla Health Brittania Google Surf Excel Brandscope Fieldfresh Delmonte Chai Point Britannia Industries Havmor ice cream 	<ul style="list-style-type: none"> Fetching items from any store and delivering it to the customer Helps create and manage daily tasks Provides Customer to customer product delivery Offers Bike-sharing services in certain areas Helping companies deliver their products 	<ul style="list-style-type: none"> Has its own logistics and supply chain Fully responsible for delivery of the order to the customer Deliver anything what customer wants Charges minimal delivery costs Takes up tasks and gives customers more time for other activities Helps schedule your tasks and make a delivery or purchase or a pick-up or drop Uses a combination of artificial intelligence, machine learning algorithms, and human operators Offers local businesses tools to manage inventory, drive marketing and support the business Building a sophisticated technological platform that merchants use to get a wide-range of customers Developing a street-level sales team capable of educating and simplifying communication with retailers Integration of large merchants' system into Dunzo's API for easy conversion Offering discounts, offers, cashback, and coupons for retaining customers 	<ul style="list-style-type: none"> 24/7 customer support 48% queries are solved by AI Dunzo interacts with customers through Instagram, Facebook, Twitter and LinkedIn Rating, review and feedback by the customers 	<ul style="list-style-type: none"> Anyone using a Smartphone Customers who wish to get things delivered to them Markets between the ages of 18 to 55, who want to make purchases from any store Consumers who could use some help in performing chores like laundry, fixing electronic items, repairs, fetching, duplicate keys, forgotten items, or documents Customers who wish to send a package to anyone Users who wish to take bike taxis or travel short distances more quickly Merchants or retailers who want to find delivery partners Small businesses and e-commerce stores which require logistical assistance
	Key Resources		Channels	
	<ul style="list-style-type: none"> Physical resources include Dunzo's head office in Bangalore, other offices in Delhi, Gurgaon, Pune, Chennai, Jaipur, Mumbai, and Hyderabad. Mobile application and Website Technological resources such as AI and machine learning algorithms Human resources include highly talented IIT alumni, and industrious delivery partners Financial resources include 18 funding rounds with recent investment from Blacksoil. 	<ul style="list-style-type: none"> Applications (Android, iOS, and Windows PC and Mac OS): Dunzo for Grocery, food, and more app; Dunzo for partners app; and Dunzo Mo app Website: Features Dunzo for customers, Dunzo for partners, Dunzo for retailers, and Dunzo for Business 		
Cost Structure		Revenue Streams		
<ul style="list-style-type: none"> Technological Setup and running costs (Website and Application) Salaries to permanent employees Payment to delivery executives and fuel expenditure Cost-driven cost structure Advertisement and Promotion Expenses Other operating & administration costs 		<ul style="list-style-type: none"> Delivery charges from customers Commission from merchant partners Surge charges due to demand Fees for services offered Commission from delivery riders Warehousing income Income from brand campaigns 		

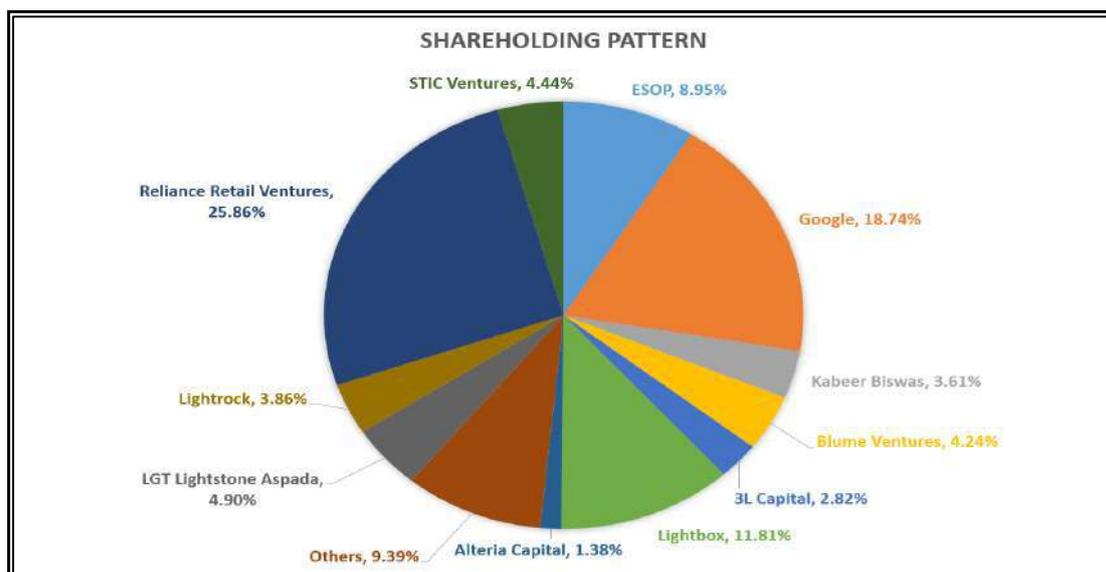
Source: By authors

5.0 Funding and Investors

Kabeer Biswas initially invested \$33,610 on Dunzo. In 18 rounds of investment, Dunzo raised a total of around \$382.6 Million. Dunzo crossed a \$775 Million valuation from

the recent Series E funding. Aspada Investment Advisors and Blume Ventures led a \$650,000 (about Rs 4.4 crore) pre-Series a round of funding for Bangalore-based daily task management app Dunzo. Dunzo is being supported by the Fund of Funds for Startups (FFS) through 88 alternative investment funds (AIFs), which were launched under the Startup India initiative in 2016 by the Prime Minister, Shri Narendra Modi. The FFS has committed ₹7,385 crore towards supporting startups like Dunzo.”

Figure 1: Shareholding Pattern



Source: <https://entrackr.com/2022/01/decoding-reliance-backed-dunzo-series-f-round-and-captable/>

6.0 Marketing

Dunzo has a very unique marketing strategy. It spent a considerable amount on digital marketing, advertisements and promotions. Dunzo’s advertising promotional expenses jumped almost 6X to INR 64.4 Cr in FY22 from INR 11 Cr in FY21.

6.1 Segmentation, targeting and positioning

- Segmentation – Dunzo is positioned as a consumer services platform, it offers a wide range of services such as parcel delivery, pick-up and drop-off services, shopping or laundry delivery, local courier services, medicine delivery, meat and seafood supply, and online eatery ordering.
- Targeting – Dunzo’s primary demographic is anyone who uses a mobile device. This will create a medium that people of all levels can use.
- Positioning – Dunzo has the ability to alter your shopping habits, relocate items, and gain entry to your community.

Table 2: Funding Rounds

Date	Series	Investors	Amount
November 2016	Series A	Aspada Investment	\$1.18 Million
December 2017	Series B	Google, Blume Ventures, Aspada Investment	\$12.3 Million
November 2018	Debt	Alteria Capital	\$1 Million
February 2019	Series C	Blume Ventures, Lakshmi Narayanan, Raintree Family Office, Monika Garware Modi	\$3.1 Million
February 2019	Series C	-	\$0.4 Million
April 2019	Corporate Round	Google, Blume Ventures, Alteria Capital, Patni Wealth Advisors	\$9.4 Million
May 2019	Venture Round	Kalpavriksh Fund	\$0.6 Million
June 2019	Series C	Belltower Fund Group Ltd	\$0.4 Million
August 2019	Debt	Alteria Capital	\$2.8 Million
October 2019	Series D	Lightbox Ventures, 3L Capital, STIC Investment, STIC Ventures and Google	\$45 Million
February 2020	Debt	Alteria Capital	\$11 Million
September 2020	Series E	Google, Lightstone Fund	\$28 Million
January 2021	Series E	Google, Lightbox, Evolve, Hana Financial Investment, LGT Lightstone Aspada, and Alteria	\$40 Million
March, 2021	Series E	Ranjan Madhukar Patwardhan, Gautam Madan Bahal, Rich Ravi Agrawal, Ravi Purushottam Agrawal, Vikas Poddar, Amit Bipin Nanavati, Krishtal Advisors, Mauryan Trusteeship Private	\$8 Million
January, 2022	Series F	Lightbox Ventures, Lightrock, India3L Capital, Alteria Capital, Reliance Retail	\$240 Million
November, 2022	Debt	BlackSoil	\$6.12 Million

Source: https://www.crunchbase.com/organization/dunzo/company_financials

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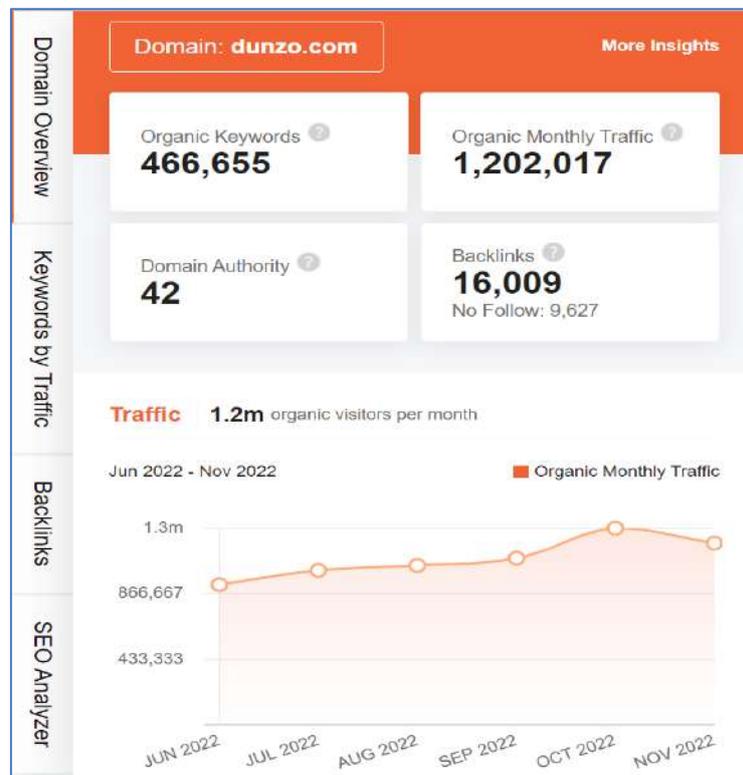
Dunzo has focused on two types of people in its communication: employees and customers. Consumers are entertained responsibly while the delivery partners are valued for executing the operations. Gratitude for frontline personnel in the face of the pandemic was a frequent theme. Dunzo uses a 70:20:10 method.

6.2 Some marketing strategies it uses include

- **Moment Marketing:** Dunzo is fast to respond and always brings material that is relevant to the activities taking place in the surrounding area. It has its eccentricity to attract the attention of individuals from all around Social Media.
- **Meme Marketing:** The brand also looked at the Meme industry to acquire transactions faster. It has been a keen observer of memes and marketing trends. Dunzo is quick to adapt to new formats that have become popular on the internet.
- **Comic Series:** Dunzo has a unique method of engagement; it developed its comic series, “Dunya Ki Duniya,” to encourage interaction.
- **Bollywood References:** Bollywood is a popular pastime among Millennials and Generation Z. To attract its filmy audience, the brand uses a variety of conversation words and scenes from movies. They bring a fun aspect to their marketing approach.
- **Hoardings and Gantries:** Dunzo has taken up prominent positions throughout Pune and other cities, peppering the public with witty puns. The puns appear to be largely influenced by Bollywood of the 1990s; for example, one hoarding reads “Koi Milk Gaya,” while another reads “Dilwale Dhaniya le aayenge.”
- **Hyper-Local Communications:** Dunzo markets to its consumers through hyperlocal communication. Hyperlocal communication involves integrating local personnel and developing marketing communications that are fun and personalized for local audiences. The brand also delivers local or hyperlocal supplies, it connects with the clients in the same way.
- **Hashtag campaigns:** Dunzo understands social media hashtags and uses them to build some great campaigns. Their #dudewithsign hashtag on Twitter, #nariwithsign hashtag on Twitter, and #partnerwithsign hashtag on Twitter campaigns have gotten so many views and conversations that other businesses are adopting them.
- **Collaborations:** Collaborations may help any business improve its brand value and reputation. Dunzo forms alliances with a variety of companies, furthermore it does not waste any opportunity to advertise its product.
- **Content in the mundane:** One of the most intriguing features of Dunzo’s social media communication is how they make content out of everyday items. Food is almost always a theme in these, which works well because of the narrative and relatability.
- **Word Of Mouth:** Dunzo’s early marketing approach focused on service and providing a positive client experience, which built strong word of mouth. They did not spend much on marketing in the early years. Their strong user base was also used to acquire new customers.

- SEO Strategies:

Figure 2: SEO Analysis of Dunzo’s Website



Source: <https://iide.co/wp-content/uploads/2022/12/Screenshot-510.png>

According to SEO norms, keywords less than 500 are poor, keywords more than 1000 are excellent, and keywords more than 10,000 are outstanding, as seen by dunzo’s 466K+ organic keywords. More than 20,000 visitors per month are incredible. Dunzo receives 1.2 million annual visitors, which is fantastic. This demonstrates that Dunzo has an excellent and remarkable SEO strategy, as evidenced by the above picture. Let’s Dunzo it! Dunzo’s marketing success is demonstrated by the fact that it has become a verb. Companies must establish trendsetting marketing tactics to enhance public involvement. As businesses grow, it’s critical to cut through the clutter and target the proper audience.

7.0 Sales

By June 2015, the team at Dunzo was completing about 70 tasks a day on their Whatsapp group service. The company grew to a 10,000 monthly run rate at the end of the year. Dunzo’s turnover was \$955 in FY15. The company achieved 500 orders a day in 2016. In FY16–17, Dunzo’s turnover rose to \$132,275 with the net loss being \$1.5 million and expenses \$1.55 million.

In 2017, Dunzo running only in Bangalore handled 3,500 to 4,000 tasks a day with monthly revenue of \$134.5k. The company's repeat purchase rate was three a month in January. The delivery time recorded was 75 minutes. Dunzo had accomplished 2,50,000 tasks by the end of 2017. Dunzo's transaction volume is around 1 million. 40% of the total traffic is from Bangalore, 35% comes from Gurugram, and 25% from Pune. 75,590 deliveries were completed within a 100-meter radius in the year 2018. Delivery time decreased to a period of 45 minutes with 40k-50k tasks per month. The operational revenue of Dunzo in 2018 was \$21.28k. With five times a month repeat purchase rate, 65%-70% of task volumes from pickups and drops, 5%-7% from home services, and 20%-25% from purchases and sales. Dunzo was launched in Chennai. In the same year, they incurred a loss of \$3 million with \$2.96 million as expenses.

In 2019, Dunzo dealt with 2 million transactions a month across six cities in India including Delhi, Gurugram, Mumbai, and Hyderabad. Dunzo's operational revenue was \$103k. From a \$2 loss from every delivery, it was brought down to 40 cents. The expenses grew 8 times in the same year to \$23.22 million with a loss of \$23.15 million. It was given a \$200 million valuation at the end of the year. It has an 80% repeat user rate. The startup has 75,000 stores on its platform.

Dunzo is valued at \$250 million in 2020. Their services were launched in Jaipur, Pune, Mumbai, Hyderabad, Bangalore, Gurugram, Chennai, and Delhi. There was a drastic rise in the number of tasks executed in an hour, savings per delivery, and average ticket size. Dunzo was providing about 2.5 million deliveries then, but the Covid-19 epidemic reduced that number by 25%. Dunzo was growing 2X every month without marketing and promotions. 33% increase in the weekly orders generated revenue for Dunzo. The operating revenue increased to \$3.69 million in FY20. Employee benefits expenditure increased 73% to \$9.91 million. Delivery partner expenses grew 2.2X to \$20.48 million. Costs on customer acquisition and discounts spiked 2.7X to \$9.68 million. Administration costs jumped up 4.2X to \$11.25 million. The company's expenses also include merchants' and delivery partners' onboarding and maintenance charges, customer support charges, payment gateway charges, etc. The annual total expenditure calculated rose 2.3X to \$54.8 million in FY20. With Dunzo's expenses rising 2.13X to \$48.34 million, they incurred a loss of \$30.71 million at the end of FY20.

The delivery platform has reported a 350% and 318% rise in medicine and grocery orders respectively, at the beginning of 2021. With over 20,000 deliveries to hospitals, there was a rapid rise in the company's pick up and drop orders of 204%. Dunzo recorded a 2X increase in traffic to deliver essentials. Dunzo began 15 min deliveries for 2000 commonly-sought-after items. The company is spending \$2.5 million every month. Dunzo's gross realization grew 11X, which included merchant's commission, revenue from ancillary businesses, and delivery fees from customers. The hyperlocal delivery company reached breakeven in its headquarters, Bangalore. The startup's earning is 20% of the order which includes both merchants' and customers' delivery fees. Dunzo's gross margins are profitable which reduced the EBITDA loss by 68% every year. The company has increased expenses to

meet a greater scale. Dunzo's revenue from operations grew over 2X to Rs 54.3 crore in FY22, according to its annual financial statements with the Registrar of Companies (RoC) show. The firm generates revenue largely from online platform services which contributed nearly 93% to the total operating income. Collection from online platform services ballooned over 2X to Rs 50.6 crore in FY22 from Rs 24.7 crore in FY21. These services include commission collected from riders, advertisement fees, sale of traded goods, subscriptions et al. Importantly, this also includes Rs 2.3 crore collected via D4B (Dunzo for Business).

Importantly, the firm had reclassified its financial statement for the corresponding year, which impacted revenue, expenses, and loss figures for FY21. Indians tipped ₹3 crore to Dunzo delivery partners as a token of gratitude, according to the quick commerce company's annual India Shops Report 2022. Revenue from merchant stores for providing warehouse management jumped 4X to Rs 1.6 crore during FY22 while the sale of products brought Rs 2.1 crore to the company's coffers. Dunzo also made Rs 13.4 crore mainly from interest on bank and security deposits which pushed its total revenue to Rs 67.7 crore. Akin to many growth stage companies, its employee benefits expense constituted the largest cost element, forming 26% of the annual expenditure. This cost surged 50.3% to Rs 138.3 crore in FY22 which includes Rs 19.4 crore of ESOPs expenses.

Figure 3: Financial Performance of Dunzo

Parameter	FY21	FY22
EBITDA Margin	-714.63	-645.64%
Expense/₹ of Operation Revenue	₹10.28	₹9.80
ROCE	-122.43%	-31.95%

Source: <https://entrackr.com/2021/09/dunzo-revenue-jumps-66-to-rs-46-cr-in-fy21-outstanding-losses-balloon-to-rs-768-cr/>

8.0 Human Resource

The hyperlocal e-commerce and logistics sector is suffering a huge retention issue., Geetanjali Purohit, director and head of marketing at the hyperlocal delivery startup Shadowfax, said, "The minute a person places an order, they watch it like a hawk. The only way to deliver on time (and retain the end users) is through a collaboration between tech, communication and marketing teams of a company." with yearly attrition of over 50% among delivery employees, evoking thoughts of a labor scarcity in India's BPO sector a decade ago.

Kabeer Biswas, Ankur Agarwal, Dalvir Suri, and Mukund Jha are the founders of Dunzo. The core team of Dunzo is as follows:

- CEO: Kabeer Biswas
- Co-Founders: Ankur Agarwal, Mukund Jha, Dalvir Suri
- CTO: Mukund Jha
- Senior Product Manager: Nikhil Taneja
- Operations Manager: Anupam Nath

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- Founding Partner: Warner Queeny
- Founding Investor: Vir Kashyap
- Senior Quality Engineer: Sudeep Chandra

Dunzo has 3223 Employees as of Feb 1st, 2023. Dunzo started a cycle program in 2019 in Bangalore, Delhi, and Pune, this increased the delivery partners to 18000. Dunzo expanded to with 10k delivery partners, 5 million users as of 2021.

9.0 Technology

9.1 Applications

Dunzo for Grocery, food, and more app (Compatible for Android, iOS, Windows PC and Mac OS); Dunzo for partners app (Compatible for Android, iOS, Windows PC and Mac OS); Dunzo mo app (Compatible for android) uses Python, Jango, NodeJS and Go framework.

9.2 Website

Dunzo's website uses 28 technologies which include SPF, LetsEncrypt, and Font Awesome. The 6 technology products and services including HTML5, Google analytics, and jQuery are implemented by Dunzo.

9.3 Features and benefits of Dunzo's technology

- Quick sign up, log in, and membership options
- Placing orders is quicker and simpler using autofill options
- Subscription plan management, record bills and payment history, full admin control panel, control over notifications, backup and restore feature, Global access
- Social media integration:
 - Instagram @dunzo_it
 - Twitter @DunzoIt
 - Facebook Dunzo
 - Youtube Dunzo
 - LinkedIn
- Multiple payment gateways: Cash on Delivery, Dunzo cash, Debit and Credit card, Paypal, Simpl, Net banking, Google Pay, Paytm, Lazypay, etc
- Data security: Dunzo's large analytics setup is in place to store the user's actions in a private data storage system. The information gathered is analyzed and used for the improvement of services in Dunzo
- GPS navigation: Dunzo uses Google maps to help customers track their package and the delivery partner. The delivery assistant can pick up and deliver in time using the tracking system. The tracking system also helps customers schedule their deliveries
- Keeps track of the order history of customers for future references

- Repeat task option helps customers repeat any previously recorded tasks
- Feedback, rate, and review from the customers help Dunzo improve performance, popularity, and app downloads
- Decent incentives, different rate plans, reply to client feedback, Profile analysis, Catalogue installment, real-time data for delivery partners app
- Predictive search in the Dunzo app is automated by artificial intelligence which reads text-based commands. 80% of the tasks are completed via artificial intelligence and sophisticated machine learning. The search algorithm checks the type of task, store location, list of items, and provides the customer with the estimated time of arrival
- Promo/offers are sent as notifications to customers during special deals or festival discounts. Dunzo uses push alerts for loyalty plans, coupons, and cashback to generate brand awareness
- OTP evaluation is performed by the app during registration of a new account, pick-up, and delivery of the package. It is done to verify the customer's account, address, and order details
- Task allocation: Dunzo's partner allocation algorithm computes whether he has done this task before, the number of deliveries the partner has done in the area, has he visited a grocery store before. Dunzo makes completing tasks more relevant to the delivery partners by offering convenient tasks closer to home
- Personalized content for customers is achieved by Dunzo using machine learning and artificial intelligence to figure out the best delivery partner for the task, best merchant to get your order fulfilled
- Referral codes are shared by the existing users to the new users of the Dunzo app to receive Dunzo cash rewards
- Partner referral: The delivery partners refer to their friends to receive a bonus when a task is completed by the new partner
- An AI bot in the Dunzo app takes care of the searches and item lists of the customer
- Vahan provides blue-collar jobs to millions of youngsters. It uses AI and machine learning to run campaigns on Whatsapp and acquire more leads and delivery executives for Dunzo and also reduces its sourcing costs and scale
- AI-based geographical supply-and-demand management system and a cloud-based e-commerce merchant platform are responsible for speedy service in Dunzo
- The AI system tracks the geographic distribution of delivery agents to the incoming orders and makes incentive fee modifications as required to improve delivery-agent location and fulfill requests quickly and efficiently
- Dunzo improved their listing software by installing merchant and product tie-ups to choose their products/items for the furnished list. Merchants receive accepted detailed orders which are picked up by a delivery partner and are delivered to the customer
- Test-Driven Development (TDD) and Functional Programming (FP) are the methods used for building a predictable and testable code that was used for Bike taxi services. It helped

maintain quality and was easy to make modifications even when the system grew complex

- Functional programming made it easier to maintain the differences between impure and pure code, which helped the system reduce bugs, maintenance costs and improve the stability of the Bike taxi services
- Dunzo is starting a “Medicine from the sky” program which involves the delivery of essentials through unmanned low-altitude drones or aerial vehicles to remote locations in Telangana.
- Google is providing Dunzo access to its geographic, AI, and other advanced technologies for delivery routing optimization and geographical supply-demand optimization and developing autonomous drone flight software.

10.0 Competitors

Dunzo has several competitors, including Zepto, Swiggy Instamart, Blinkit, and BigBasket Now, which have a significant market share.

Table 3: Competitor Analysis

Parameters	Zepto	Swiggy Instamart	Blinkit	BB Now	Dunzo
Product	Zepto delivers groceries within 10 minutes through the chain of dark stores and mini-warehouses with an instant service model.	Instamart is a chain of online convenience stores. Offering various products through these virtual convenience stores.	Revolutionizing e-commerce by making the stuff most important to the customer, available in a blink of your eye.	A quick grocery delivery service from Big Basket delivered under 30 min.	Dunzo helps to create and manage daily tasks by connecting the tasks to its delivery partners who make purchases or fetch items from any store and deliver them.
Price	Rs.35 for orders under Rs.99.	₹15-35 for Instant Delivery ₹5 for Slot Delivery (hourly slots).	Free or Rs.9/-Rs.30/- during peak hours.	Rs.50 for orders under Rs.250 and Rs.30 orders between Rs.251 and 600.	₹15 + based on distance free delivery for new users.
Distribution	Only instant grocery delivery. Available in Delhi-NCR, Chennai, Gurgaon, Bangalore, Mumbai, Hyderabad, Pune, Noida, and Kolkata.	Instant Delivery Slot Delivery (delivers after min 1.5 hrs). Available in Bangalore, Delhi-NCR, Hyderabad, Mumbai, Chennai, Ahmedabad, Coimbatore, Chandigarh, Gurugram, Indore, Jaipur, Kolkata, Kochi, Lucknow, Ludhiana, Vizag, Noida, and Pune.	Instant grocery delivery. Available in 30+ cites such as Agra, Ahmedabad, Aligarh, Allahabad, Bengaluru, Bhiwadi, Bijnor, Chandigarh, Chennai, Delhi, Durgapur, Faridabad, Gauriganj, Gonda, Gurugram, etc.	Instant Grocery Delivery. Available in Mumbai, Delhi, Bangalore, Chennai, Kolkata, Lucknow, Rajasthan, and Hyderabad.	Instant grocery delivery. Bangalore, Pune, Gurgaon, Hyderabad, New Delhi, Chennai, and Mumbai.
Market reviews	Apple App Store Ratings: 4.1/5 with 1100 ratings Google Play Store Ratings & Installs: 4.4/5 with 12833 ratings 10L+ installs.	63.9L ratings with an average 4.4/5.	Apple App Store Ratings: 3.3/5 with 3 ratings. Google Play Store Ratings & Installs: 4.6/5 with 639479 ratings 10M+ installs.	Not satisfactory.. With 4/5.	Apple App Store Ratings: 4.7/5 with 76800 ratings Google Play Store Ratings & Installs: 4.7/5 with 233428 ratings 50L+ installs.
Unique Value Proposition	Promises 10 minutes delivery. Average NPS is 81 for freshness of products. UI is very simple and easy to use. The packaging is great.	Long Home Delivery Service Hours. Delivering from Its own store. UI is very convenient. simple, fun campaign that seeks to get the message out fast	Available in many states and diverse collaborations.	A large network of fulfillment centers and dark stores which stock more than 50,000 SKUs.	Delivers anything a customer wants and peer to peer delivery. Engaging meme marketing.
Profitability	Reported a net loss of ₹390.4 crores in FY22 on a standalone basis.	Swiggy losses double to Rs.3,629 cr in FY22.	Blinkit's losses spiked 2.58X to Rs.1,440 crore during FY22.	4X rise in the loss- 812.7 Cr in FY22.	Dunzo's losses widen to Rs 464 Cr in FY22 while revenue doubles.

Source: By authors

Other competitors in the industry include Shadow Fax, Fresh to Home, Dmart Ready, Star Quik, etc. Dunzo is making efforts to outperform its competitors and achieve a revenue of \$1 billion while securing the most substantial market share in the quick commerce industry.

11.0 Future Plans

- As opposed to the 15-20 minute grocery delivery promise, the startup aims to incentivise 60-minute delivery.
- According to reports, Dunzo has raised \$150 million and expects to raise another Over the next two years, It aims to multiply the amount of cash it has raised to grow throughout the country and become a \$1 billion revenue corporation.
- Dunzo is planning to raise \$150-200 million from Middle East-based sovereign wealth funds at a valuation unchanged from its previous funding round, according to a report in The Financial Express.
- Dunzo is planning to raise \$150-200 million from Middle East-based sovereign wealth funds at a valuation unchanged from its previous funding round, according to a report in The Financial Express.
- Dunzo's goal is to become India's largest e-commerce platform by 2024
- Dunzo wants to create an online version of 7-Eleven in India. Which the firm believes to serve as a basic convenience store throughout India. Dunzo wants to construct a community of shops online with the core aim of making life simpler for customers similar to 7-Eleven.
- Dunzo now takes an average of 19 minutes to make a delivery, and they aim to complete it in one minute using drones in the future.
- The federal government has granted Dunzo permission to undertake BVLOS trial flights with drones. The Telangana state's current logistics network will be used to provide medical supplies through the drone delivery system, which will focus on an end-to-end ecosystem for drone-based logistic transportation.
- Dunzo's strategy for this year is to achieve sustainable growth and earn profits in fast-growing cities like Pune, Chennai, and Mumbai.
- Over the next two years, Dunzo's Gross Merchandise Value is anticipated to increase by 150 percent from its present \$200 million. Dunzo plans to expand its operations to 20 cities by 2023 using this growth model.
- It seeks to create a two-sided company by assisting small companies in growing their operations while also making life easier for its users.
- Dunzo aims to make digital interactions with the offline world more easy, safe, and more seamless

Dunzo has been a big hit in the cities where it's been implemented so far. The platform has played a pivotal role in making its consumers' daily chores easier and more pleasant. In the near future, the company intends to collaborate with other manufacturers and merchants and expand the visibility of its actual retail stores on its mobile app to improve product searches on its app. It's also aiming to expand its footprint in several tier two cities. Dunzo has the potential to grow and become a major online delivery service platform in today's technology-driven society. To satisfy the demands of people, the firm continues to expand, evolve, and transform.

12.0 Challenges and Solutions

12.1 Challenges

- Dunzo spent huge amounts of money on building an app and a website, besides they did not get the desired number of customers as the marketing was not up to the mark. These are the major reasons for their weak financials.
- Dunzo is facing cut-throat competition from the leading players in the hyperlocal delivery industry such as swiggy, zomato, etc. Dunzo is continuously striving to earn a considerable market share.
- The hiring of delivery agents and professionals was inadequate when compared to the demand, which leads to low deliveries per day. This happens to be one of the reasons for low customer satisfaction.
- Higher customer acquisition costs are linked to improper targeting of the audience.
- Infrastructure, inventory, and technology management have high maintenance costs
- Fixing the heavy bugs was time-taking and major decisions were suspended due to the problems in the application
- The introduction of new features delayed many extensive expansion decisions by the company

12.2 Solutions

- They spent a high amount for integrating AI and machine learning algorithms into their app, instead they should spend on marketing and expanding their footprint
- A faster expansion could reduce delivery time and costs
- Providing faster, better services than competitors
- Increasing resources and employment opportunities
- Achieving Customer Lifetime value and decreasing customer acquisition cost
- Reviewing and defining an architecture for quick yet sustainable growth
- Reducing uncertainties to deliver new features on time.
- Streamlining the onboarding process for new team members to institute practices for tight delivery and development.

13.0 Conclusions

13.1 Positives

- Dunzo addressed the need in the Indian job market by establishing a wide range of career possibilities, from department heads to delivery agents
- As previously said, Dunzo uses innovative and participatory social media marketing. This maintains a positive relationship with clients by keeping them entertained.
- Dunzo makes things happen with a single tap of a finger, making work easy and efficient
- Dunzo helps many small businesses by providing them the required visibility, increasing their growth prospects
- Many processes of Dunzo are integrated with AI. Artificial intelligence is used to complete 60% of their transactions. Dunzo's app, website, and entire interface are extremely user-friendly and available all year, making it simple to use.
- It is faster than other service providers, such as Amazon, because it delivers items from a closer source in less than 30 minutes within a defined radius
- There is no minimum order value for delivery, which helps to increase client numbers
- They have numerous stores in India that sell a variety of products, and offline stores are major competitors. To get around this, Dunzo communicates with its customers and bends over backward to satisfy them.

13.2 Negatives

- We can do all of our errands and work from the comfort of our own homes. This is made possible via Dunzo. This causes people to become lethargic.
- Dunzo is up against stiff competition from established delivery companies, and it has struggled to gain a significant portion of the market in the seven years since its inception
- Instead of concentrating initial efforts and investments on the website and application, they could have dispersed them to marketing, brand building, forming partnerships, and focused more on revenue and client acquisition
- Dunzo should focus on enhancing customer service and maintaining positive client connection

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