LONDON SCHOOL®
OF MANAGEMENT EDUCATION

LSME RESEARCH BOOK 2025

PUBLICATION OF
RESEARCH PAPERS
PRESENTED AT THE
11th LSME INTERNATIONAL
RESEARCH CONFERENCE ON

"RE-VISIONING PRACTICE IN EDUCATION, HEALTH CARE AND BUSINESS AMIDST GLOBAL CHALLENGES"

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HELD ON 12TH NOVEMBER 2024

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FOREWORD

As Principal of LSME, I am honored to introduce this publication capturing the rich intellectual exchange from our 2024 International Research Conference on "Re-visioning Practice in Education, Healthcare and Business Amidst Global Challenges." This gathering represents not merely an academic event but a vital conversation about how we collectively navigate an increasingly complex world where traditional approaches require thoughtful reimagining.

The past several years have presented unprecedented challenges that have fundamentally reshaped educational delivery, healthcare provision, and business operations worldwide. Our conference theme emerged from the recognition that merely returning to pre-pandemic practices would be insufficient; instead, we must thoughtfully reconstruct our approaches to meet evolving global realities while preserving what remains valuable from established traditions.

LSME takes particular pride in facilitating these critical dialogues that bridge theory and practice. This year's conference successfully brought together diverse perspectives from across continents, creating a dynamic space where innovative ideas could flourish and practical solutions could be developed. Our commitment to inclusive participation ensured that voices from various cultural, professional, and academic backgrounds contributed meaningfully to our shared understanding.

I extend my deepest appreciation to our distinguished keynote speakers, session chairs, and all contributors whose rigorous research and thoughtful insights form the foundation of this publication. Your work demonstrates how scholarly inquiry can directly inform practice in ways that address real-world challenges while advancing our collective knowledge.

This Research Book stands as testament to our community's resilience and creativity. Each contribution represents not just academic achievement but practical pathways forward in our respective fields. Collectively, these works form a valuable resource that will inspire further innovation and collaboration across our global research community.

LSME remains steadfast in our mission to foster meaningful scholarly exchange and practical application of research. We welcome your engagement with this publication and look forward to continuing our important work together as we collectively advance knowledge that makes a difference.

Dr Sarita Parhi
Principal, London School of Management Education (LSME)

PART 1 - INTRODUCTION

The London School of Management Education is proud to present the peer-reviewed final record of papers and presentations delivered at our 2024 Conference. As in previous years, this document represents an important historical record of the main proceedings, participants and process undertaken in delivering another successful event with the help of our international research community, which we are delighted to add to the extensive library of outputs delivered since 2015.

In order to compile and complete this document, considerable effort and energy has been expended to produce final versions of research papers, each of which was peer reviewed to ensure fitness for publication. High quality editorial oversight has been applied to ensure clarity and consistency in this, the final document, together with extensive scrutiny through the Conference Committee.

The document comprises three parts – this, the introduction, providing context and orientation for the reader; part two, abstracts of papers delivered during conference 2024; and part three, the final peer reviewed full papers delivered by our community of contributing researchers.

Our aim in producing this Research Book is to provide a permanent, referenceable and Open Source point of reference for all, consistent with the high quality outputs from previous Conferences in the LSME series, and continuing to meet the high standards and expectations of our global community of practice.

CONFERENCE OBJECTIVES

Continuing the common themes of the International Research Conference established in 2015, the objectives of our 2024 event were based upon principles of inclusivity, collaboration, openness and enabling creative potential. Our communities of interest and practice share a number of common objectives as part of the conference ethos, including:

- To provide an inclusive platform fostering an active community of researchers collaborating on issues of social significance and societal concern
- To advance the principles and practices of Responsible Research and Innovation (RRI) in support of researchers at all stages of their research journey
- To provide an open and accessible mechanism for sharing creative contributions to the research agenda across a range of subject matter and discipline areas

CONFERENCE MISSION

Our long-standing alignment with the tenets of Responsible Research and Innovations agenda provide an overarching mission for the conference, namely to:

- Promote social justice, inclusion and equity
- Increase the influence of research on policy and practice in key impact areas
- Increase the commitment of participants in research via active involvement in all stages of an open, principled and inclusive process of investigation and dissemination of findings

These principles are applied equally to all participants, including researchers, academic observers, delegates and the wider communities touched by research projects explored in the conference.

CONFERENCE THEME

Our 2024 conference, held on November 12th took as its main theme, “Re-visioning Practice in Education, Health Care and Business Amidst Global Challenges”, a theme that had been selected for inclusivity and in recognition of the continuing turbulence being experienced on a global scale in the time since the previous event. Thus the conference attracted a broad selection of contributions, whilst continuing in the tradition established in the conference series of exploring impact and practical implications for stakeholder communities.

Likewise, we continued to take a lead from the United Nations (UN) Sustainable Development Goals for universal education which inform research in local communities, regional areas, national priorities and international cross-cutting themes.

Proposals for conference papers were sought, with successful contributions grouped under a number of streams for delivery during conference business, including:

- Education
- Business & Commerce
- Social and Environmental Sciences
- Health and Social Care

ABOUT THE LONDON SCHOOL OF MANAGEMENT EDUCATION (LSME)

The London School of Management Education (LSME) is a Higher Education Institution based in the London Borough of Redbridge, United Kingdom. Established in 2007, LSME provides a growing portfolio of opportunities for higher education study to an ever-expanding community of stakeholders across London and the South East of the UK.

VISION

To play a leading role in the delivery of global education services in partnership through radical Lifelong Learning training, equipping managers, health and social care professionals, tutors, teachers and trainers, with modern and transformational standards.

MISSION

Our mission is to provide affordable and high-quality training for aspiring and practising managers, health & social care professionals and educationalists that is innovative and global in perspective and abides by the United Nation's Principles of Responsible Management Education. Values the School seeks to nurture and sustain a creative and supportive academic environment based upon an ethos of respect and transparency.

COMMITMENT

We are committed to:

- High-quality learning experience
- Developing and sharing expertise to strengthen our capacity
- Professional relationships based on mutual respect and transparency
- Equality and diversity
- Financial robustness

The School's philosophy is enshrined in its slogan: "Transforming people with skills". We aim to introduce our students to the innovative skills required for their careers in business, education or health and social care. LSME aims to achieve this by being a facilitator for encouraging scholarly inquiries that examine "education and the learning processes and human attributes, interactions, organisations, and institutions that shape education and its outcomes".

MESSAGE FROM THE 2024 CONFERENCE CHAIR PROFESSOR STEPHEN MCKINNEY

As Chair of the LSME Conference Committee, I am delighted to offer some words of introduction to this book of research papers from the 11th LSME International Research conference held in 2024. It is noteworthy that the series of LSME conferences originated in London in January 2015 and has included two major conferences in Chandigarh in India. The 2024 conference was the fourth LSME international conference that was conducted online (the 2022 conference was a hybrid). This series of conferences has proved to be popular and very successful and has provided significant and sustained evidence of the commitment of the LSME to the promotion of research. The LSME has provided numerous opportunities for researchers, with a special focus on early career researchers, who have been encouraged to present and discuss their research. The planning and organisation of eleven international conferences is a laudable achievement, and it has been my privilege to have been involved in the preparation of all eleven conferences.

The theme of the 2024 conference was focussed on Re-visioning Practice in Education, Health Care and Business amid Global Challenges. There are so many serious global challenges in our contemporary world. This is an age of instability. Warfare and conflict continue to rage in many parts of the world. Many countries face economic difficulties and, in some places, crises. We are witnessing and, indeed, experiencing the effects of global warming. We are being constantly warned about the damage to the environment caused by pollution and neglect. The questions we posed for the researchers were focussed on how research can help support the re-visioning and reconstruction of effective practices in education, health care and business and contribute to a more sustainable future for all. Our international research community rose to this challenge and provided some very interesting and insightful ideas. In this Research book you will find some of the full papers that were delivered at the conference. This will provide an invaluable overview of some of the themes that were covered in the conference. As always, I offer my very sincere thanks to all who submitted an abstract and delivered a paper at the conference. Further, I thank the chairs of the sessions, the rapporteurs and the IT assistants for being generous with their time and expertise.

I wish to formally recognise the contribution of the members of the Conference Committee: Dr Ravi Kumar, Dr Sarita Parhi, Hassan Shifau, Martin McAreavey, Dr Peter Gray and Dr Dolly Jackson-Sillah. The planning for any conference is complicated, time consuming and requires close attention to detail. There are, of course, further levels of complexity when the conference is being planned and delivered as an online event. We are reliant on the efficiency of the technology of the LSME, and the technology and connectivity that is available to presenters. All members of the committee worked very hard in the planning process, and all had an important role in ensuring that the online operation of the conference was successful. I offer my heartfelt thanks to all. I offer a special word of gratitude to all those who helped with the review of the abstracts. I am also grateful to the VIP guests and other guests for their presentations and greetings to the delegates of the conference. The staff of the LSME provided an exemplary level of support for the conference and I thank them for their patience, courtesy and good humour.

With very best wishes,

Professor Stephen McKinney
University of Glasgow

MESSAGE FROM GUEST OF HONOUR

Dear Esteemed Colleagues, Researchers, and Members of the LSME International Research Community,

It is my distinct privilege to address you as we gather around the critical theme of "Re-visioning Practice in Education, Health Care and Business Amidst Global Challenges." As Vice Chancellor of Chalimbana University in Zambia, I bring a perspective shaped by the realities of higher education in Africa, where global challenges often manifest with particular intensity yet where innovative solutions frequently emerge from necessity.

The past decade has tested our systems in unprecedented ways. From the pandemic's disruption of learning to the economic pressures reshaping healthcare access and business models, we have been forced to reconsider foundational assumptions about how we serve our communities. What was once theoretical has become urgent practice - and this is precisely where research meets reality.

In Zambia and across the African continent, we've witnessed how digital divides exacerbate educational inequalities, how healthcare systems strain under multiple burdens, and how businesses struggle to adapt in volatile economic conditions. Yet, within these challenges lie profound opportunities for reimagining our approaches. At Chalimbana University, we've seen how mobile technology can bridge educational gaps in remote areas, how community health workers can transform primary care delivery, and how small enterprises can drive sustainable development when given the right support.

As we "re-vision" our practices, I urge us to remember that true innovation isn't just about adopting new technologies or methodologies, but about centering human dignity and equity in all our work. In the African tradition of Ubuntu - "I am because we are" - we recognize that our individual success is inextricably linked to collective wellbeing. This philosophy should guide our research and practice as we address global challenges.

I commend LSME for creating this vital platform for knowledge exchange and for maintaining their steadfast commitment to "Transforming people with skills" through scholarly inquiry. The United Nations' Principles of Responsible Management Education, which inform LSME's mission, resonate deeply with our values at Chalimbana University.

To the researchers whose work appears in this publication: Your contributions matter. In a world facing complex, interconnected challenges, your insights provide beacons of understanding and pathways to solutions. May your research continue to inform practice, influence policy, and ultimately improve lives across our global community.

I look forward to continued collaboration between our institutions and across our international research community as we work together to build more resilient, equitable, and innovative approaches to education, healthcare, and business.

With appreciation and optimism,

Professor William Phiri
Vice Chancellor, Chalimbana University, Zambia

MESSAGE FROM PROFESSOR PETER GRAY

This is the tenth anniversary of the conference that launched LSME on the path to being a major force in research culture. It is a long and arduous path, and we have only taken a few steps. Nevertheless, we are on the way. This book is another landmark on that path, even if the destination is not immediately obvious.

There are three questions that are the origin of thought. Why, how, what? This research book pursues 'what…' questions. What are the beliefs of…? What is the policy concerning…? These are valid questions that deserve answers. For the last ten years, LSME has helped researchers by promoting their work on the 'what' question. But it has also asked 'how?'

Responsible Research and Innovation (RRI) is about 'how'. How can we help teachers cope with rising class sizes, fewer resources, and increased demands? How can we solve the problems of climate change and loss of biodiversity? How can we help people to live better lives? LSME has challenged researchers to answer these questions, by promoting RRI. Some of our contributors have come up with answers, but there is always a paradox. Belief in research comes up against belief in tradition, belief in quantification, belief in hierarchy.

In the world today, we see the results of this paradox. Research enables F16s to bomb schools and hospitals in Gaza. Research could enable peace in Gaza but belief gets in the way. We can quantify the destruction but we can't quantify stupidity. And yet we obsess over so-called 'artificial intelligence'. No amount of AI will overcome the stupidity of hierarchy, the stupidity of obedience to bad leaders.

The LSME research book won't change this overnight. But examples such as the persistence of Dr Ravi Kumar and his team in publishing this book, even when it has not yet provided all the answers, is what will cause that change. LSME is about the 'why' question. Why don't educational institutions care about their students? Why doesn't research change the world?

Research does not change the world because we, as researchers, are not asking the right questions. We ask: "what is the gap in the literature that I could fill?" "; How can I get my paper into a citation index?" These are the wrong questions. We should constantly be asking how we can make things better and why are we heading for disaster? AI cannot answer these questions and is simply accelerating the circulation of …what? AI answers the 'what' questions but only by sifting through pointless answers, inadequate studies and meaningless quantifications of success.

The point of this research book is that its readers should disagree, argue, debate and ask more questions. Its authors present their work in good faith and in the hope that there will be a response. Please respond in whatever way you can. The rarest and most important thing in the world is that we should have informed conversations about the why, the how and the what. This book is designed to start those conversations.

Thank you to the authors and to LSME for believing in RRI.

Professor Peter Gray

Nord University, Norway

MESSAGE FROM THE CONFERENCE CONVENER

As our conference series continues in its second decade of successful delivery, I am delighted to present to you the final peer reviewed papers delivered by colleagues from our growing international community at the 2024 event, held online in October of last year.

The compendium of papers and artifacts contained in this document are the product of many hours of intense labour, dedication and careful consideration, both on the part of the originating authors, and on the Conference Committee and Peer Review team who have worked tirelessly to polish and produce these outputs as a permanent record of another successful iteration of our well established International Research Series.

As ever, it is the ability of our contributing authors, scholars, keynote speakers and special guests to bring personal and professional insight, practical observations, and practical applications of knowledge to light through the conference process that motivates us. Research is a uniquely human activity and whether we are a researcher or a member of an audience bearing witness to the findings of a research process, this conference provides us with excellent opportunities for gaining insight, understanding and knowledge. I am grateful to each and every participant for making the LSME International Conference series a vibrant and dynamic forum through which contributions from our research community may be shared.

I would like to offer my heartfelt thanks to everyone who made the 2024 Conference a success, by bringing new ideas into view and paying close attention to detail in enabling each narrative to unfold during conference business.

I am delighted to invite you to take time to read through the content of this document. Do also reflect upon the content and research processes followed in generating it. As humans, researchers, educators and change-agents, we should celebrate excellence and endeavour to share knowledge that can impact our planet for good.

Thank you for being part of our community of interest.

Dr Ravi Kumar
Conference Convener & Executive Director of LSME

CONFERENCE COMMITTEE

- Professor Stephen McKinney: University of Glasgow, UK – Conference Chairman
- Dr Sarita Parhi: London School of Management Education, UK
- Hassan Shifau: London School of Management Education, UK
- Dr Ravi Kumar: London School of Management Education, UK – Conference Convener
- Professor Peter Gray: Nord University, Norway
- Martin McAreavey: University of Bolton, UK
- Dr Dolly Jackson-Sillah: London School of Management Education, UK

PEER REVIEW PANEL

- Professor Stephen McKinney: Peer Review Group Chair
- Professor Peter Gray: Peer Review Group Member
- Martin McAreavey: Peer Review Group Member
- Dr Tapati Mukherjee: Peer Review Group Member
- Dr Victor Muchemwa: Peer Review Group Member

EDITORIAL BOARD MEMBERS

- Dr Ravi Kumar, London School of Management Education, UK
- Professor Stephen McKinney, University of Glasgow, UK
- Dr Sarita Parhi, London School of Management Education, UK
- Professor Peter Gray, Nord University, Norway
- Martin McAreavey, University of Bolton, UK
- Hassan Shifau, London School of Management Education, UK

DELEGATES AND PAPERS PRESENTED

NO.	PRESENTER	TITLE OF THE PAPER	COUNTRY
1	Adams Alex	Teaching English Through Blended Learning for Developing the 21st Century Skills of U.G Students: An Experimental Study	India
2	Aishath Isra Abdulla	The Impact of FinTech - Based Solutions on Customer Experience in the State-Owned Insurance Company of Maldives	Maldives
3	Arijit Banerjee	Effect of Corporate Ethical Issues on Firm's Financial Performance: An Empirical Analysis from Global Environment	India
4	Dr Anjali Puri	Effect of Meta-emotional Strategies on Divergent Production Abilities And Cognitive Dissonance	India
5	Dr Dipendra Karki	Access to Finance and Women's Entrepreneurship Development in Nepal	Nepal
6	Dr Gopikanta Suna	Positive Mental Health Among Undergraduate Students Of Odisha In Relation To Their Demographic Variables	India
7	Dr Kolawole Farinloye	Community Awareness and Preferences for Participating in Ecotourism Activities in Epping Forest, London, United Kingdom	UK
8	Dr Mayurakshee Gangopadhyay	Bridging the Gaps between Human Intelligence and Artificial Intelligence in the Field of Mental Health Care and Services	India
9	Dr Rishika Bhojwani	Influence of Line Extension Strategies on Consumer Buying Behaviour in the Branded Food Industry	India
10	Dr Sk Md Nizamuddin	SERVOQUAL: Measuring Service Quality for Distance Education in Pondicherry University: A case Study	India
11	Dr Stanzin Nouskit	Adult Literacy Programs and their Impact on Women's Lives: A Case Study of Bengaluru's Slums (India)	India
12	Dr Veda C V	Indian Wisdom of Chakra Meditation: An Alternative Therapy for Psycho-Social Issues	India
13	Dr Shelly Aggarwal	An Analytical Study On Menstruational Health And Hygiene Practices Among Adolescent Girls Residing In Slum Areas Of Chandigarh	India
14	Dr Chandrasekharan Praveen	The Impact of the Recent Adoption of Foreign Educational Practices on Teacher Training Programmes in India-A Qualitative Study	India
15	Kumar P Adhikari	The Hidden Cost of Women's Work: A Study on Time Use and Opportunity Costs in Madhesh Province, Nepal	Nepal
16	Dr Kyba Nauan	Perception of Adolescents Regarding Teacher's Treatment in Chandigarh: Tricity, India	India
17	Malak Amanullah Khan	Insights into Behavioral Challenges in ASD Children in Peshawar Autism Centers and Parental Perspectives on its Management: A mixed method study	Pakistan
18	Md Mujahid Alom	Perceptions of Mobile Learning among Senior Secondary Students Their Parents, and Teachers During the Pandemic Era	India
19	Mohamed Mahid Shareef	Exploring the Landscape of Supplement use Among Maldivian Athletes	Maldives
20	Mrs Anitha S	Gender disparity and Women at workplace Issues and Concerns" A case study of the Automobile Industry in Tumkur District of Karnataka	India
21	Prof Dr Dhanonjoy Kumar	Socioeconomic Challenges for Garment Industry Workers in Bangladesh: An Empirical Study	Bangladesh
22	Raj Bahadur Rokaya	Trend Analysis of Out-of-Pocket Expenditure in Healthcare in Nepal	Nepal

23	Sali Dewan	Beyond Borders: Unpacking the Dreams of Nepali Students Planning to Study in Australia	Nepal
24	Sanchika	Development of Reasoning Ability and Barriers among Students	India
25	Surbhi Arora	The Evolution Of Teacher Education In India: A Comprehensive Analysis	India
26	Vysali R M	Emergence of DEI Literacy as Graduate Competency and the Responses of Higher Education: A Critical Review	India
27	Dr Tapati Mukherjee	Micro Enterprise & Entrepreneurship 'In times of growing unemployment, the need for nurturing and sustaining the concept of Micro enterprises and Entrepreneurship - Are we prepared enough?'	India
28	Dr Alok Sharma	Ladder of Effective Teaching as Reflective Teaching	India
29	Evelyn McLaren	Poverty Experienced by Students on an ITE programme in Scotland	United Kingdom
30	Cristina Mio	The impact of a reading group on professional learning and teacher educator identity	United Kingdom
31	Ulana Plawuszczak Pidzamecky	Ukraine during crisis: practitioner perspectives on sustaining and reinforcing teaching and learning	United Kingdom
32	Julie Robinson	Cristo Rey Schools in America	United Kingdom

CONFERENCE PROGRAMME

OPENING SESSION

INAUGURAL SESSION – Tuesday 12th November 2024 Chairperson: Professor Stephen McKinney		
07:30 – 07:50	Technical Support to Delegates and Participants	Technical Co-hosts
07:50 – 08:00	House Keeping Announcements and Introduction of VIP Guests	MC
08:00 – 08:05	Welcome Address	Dr Ravi Kumar, Conference Convener
08:05 – 08:15	Introduction to the 11th LSME International Research Conference 2024	Professor Stephen McKinney, Conference Chairperson
08:15 – 08:20	Special Remarks by Guest of Honour	Professor William Phiri, Vice Chancellor, Chalimbana University, Zambia
08:20 – 08:25	LSME's Research Agenda	Hassan Shifau, Chief Research & Innovations Officer, LSME
08:25 – 08:35	The Path to Responsible Research and Innovations (RRI)	Professor Peter Gray, Nord University, Norway
08:35 – 08:45	Special Remarks by Guest of Honour	Professor Rajan Welukar, Vice Chancellor, ATLAS Skilltech University, Mumbai, India
08:45 – 08:55	Inaugural Address by the Chief Guest	H.E Dr Durga Bahadur Subedi, Ambassador Extraordinary and Plenipotentiary of Nepal to Japan
08:55 – 09:00	Vote of Thanks	Dr Dolly Jackson-Sillah, LSME
09:00	Group Photo Inaugural Session Ends	
10 Minutes Comfort Break		

PLENARY SESSION: KEYNOTE		
Chairperson: Professor Peter Gray **Rapporteur: Dr Dolly Jackson-Sillah**		
09:10 – 09:40	**Keynote 1:** Re-Visioning Practice in Education	Professor Stephen McKinney, University of Glasgow, UK
	Q & A Session	
5 Minutes Comfort Break		

PARALLEL SESSIONS: MORNING

09:45 – 11:25	**Parallel Session 1A: EDUCATION – As Presented** **[Presentation time is 15 minutes and 5 minutes of Q&A per paper]** **Chairperson: Professor Stephen McKinney** **Rapporteurs: Ravini Wickramasinghe**		
Paper Presentations			
Time	**Name**	**Country**	**Title**
09:45 – 10:05	Dr Sk Md Nizamuddin	India	SERVQUAL: Measuring Service Quality for Distance Education in Pondicherry University: A case Study
10:05 – 10:25	Dr Anjali Puri	India	Effect of Meta-emotional Strategies on Divergent Production Abilities and Cognitive Dissonance
10:25 – 10:45	Dr Stanzin Nouskit	India	Adult Literacy Programs and their Impact on Women's Lives: A Case Study of Bengaluru's Slums (India)
10:45 – 11:05	Dr Chandrasekharan Praveen	India	The Impact of the Recent Adoption of Foreign Educational Practices on Teacher Training Programmes in India - A Qualitative Study
11:05 – 11:25	Dr Kyba Nauan	India	Perception of Adolescents Regarding Teacher's Treatment in Chandigarh: Tricity, India
Comfort Break			

09:45 – 11:45	**Parallel Session 1B: BUSINESS & COMMERCE – As Presented** **[Presentation time is 15 minutes and 5 minutes of Q&A]** **Chairperson: Martin McAreavey** **Rapporteur: Harsha Subhashana**		
Paper Presentations			
Time	Name	Country	Title
09:45 – 10:05	Dr Dipendra Karki	Nepal	Access to Finance and Women's Entrepreneurship Development in Nepal
10:05 – 10:25	Dr Rishika Bhojwani	India	Influence of Line Extension Strategies on Consumer Buying Behaviour in the Branded Food Industry
10:25 – 10:45	Dr Tapati Mukherjee	India	Micro Enterprise & Entrepreneurship 'In Times of Growing Unemployment, the Need for Nurturing and Sustaining the Concept of Micro Enterprises and Entrepreneurship - Are we Prepared Enough?'
10:45 – 11:05	Aishath Isra Abdulla	Maldives	The Impact of FinTech - Based Solutions on Customer Experience in the State-Owned Insurance Company of Maldives
11:05 – 11:25	Arijit Banerjee	India	Effect of Corporate Ethical Issues on Firm's Financial Performance: An Empirical Analysis from Global Environment
11:25 – 11:45	Raj Bahadur Rokaya	Nepal	Trend Analysis of Out-of-Pocket Expenditure in Healthcare in Nepal
Comfort Break			

09:45 – 11:25	Parallel Session 1C: SOCIAL & ENVIRONMENTAL SCIENCES – As Presented [Presentation time is 15 minutes and 5 minutes of Q&A] Chairperson: Professor Peter Gray Rapporteur: Dr Kolawole Farinloye		
Paper Presentations			
Time	**Name**	**Country**	**Title**
09:45 – 10:05	Dr Mohamed Mahid Shareef	Maldives	Exploring the Landscape of Supplement Use Among Maldivian Athletes
10:05 – 10:25	Kumar P Adhikari	Nepal	The Hidden Cost of Women's Work: A Study on Time Use and Opportunity Costs in Madhesh Province, Nepal
10:25 – 10:45	Mrs Anitha S	India	Gender Disparity and Women at workplace Issues and Concerns" A Case Study of the Automobile Industry in Tumkur District of Karnataka
10:45 – 11:05	Prof Dr Dhanonjoy Kumar	Bangladesh	Socioeconomic Challenges for Garment Industry Workers in Bangladesh: An Empirical Study
11:05 – 11:25	Dr Kolawole Farinloye	United Kingdom	Community Awareness and Preferences for Participating in Ecotourism Activities in Epping Forest, London, United Kingdom
Comfort Break			

PLENARY SESSION: KEYNOTE 2		
Chairperson: Professor Stephen McKinney **Rapporteur: Dr Dolly Jackson-Sillah**		
11:50 – 12:10	**Keynote 2:** Responsible Research and Innovation: The Next Ten Years	Professor Peter Gray, Nord University, Norway
	Q&A	

PARALLEL SESSIONS: AFTERNOON

12:20 – 14:20	Parallel Session 2A: EDUCATION – As Presented [Presentation time is 15 minutes and 5 minutes of Q&A] Chairperson: Professor Peter Gray Rapporteur: Ravini Wickramasinghe		
Paper Presentations			
Time	**Name**	**Country**	**Title**
12:20 – 12:40	Sali Dewan	Nepal	Beyond Borders: Unpacking the Dreams of Nepali Students Planning to Study in Australia
12:40 – 13:00	Sanchika	India	Development of Reasoning Ability and Barriers among Students
13:00 – 13:20	Surbhi Arora	India	The Evolution of Teacher Education In India: A Comprehensive Analysis
13:20 – 13:40	Vysali R M	India	Emergence of DEI Literacy as Graduate Competency and the Responses of Higher Education: A Critical Review
13:40 – 14:00	Evelyn McLaren	United Kingdom	Poverty Experienced by Students on an ITE programme in Scotland
14:00 – 14:20	Dr Alok Sharma	India	Ladder of Effective Teaching as Reflective Teaching
Comfort Break			

12:20 – 14:00	Parallel Session 2B: EDUCATION, HEALTH & SOCIAL CARE – As Presented [Presentation time is 15 minutes and 5 minutes of Q&A] Chairperson: Martin McAreavey Rapporteur: Dr Minakshi Kishore		
Paper Presentations			
Time	**Name**	**Country**	**Title**
12:20 – 12:40	Cristina Mio	United Kingdom	The impact of a reading group on professional learning and teacher educator identity
12:40 – 13:00	Dr Veda C V	India	Indian Wisdom of Chakra Meditation: An Alternative Therapy for Psycho-Social Issues
13:00 – 13:20	Dr Shelly Aggarwal	India	An Analytical Study On Menstruational Health And Hygiene Practices Among Adolescent Girls Residing In Slum Areas Of Chandigarh
13:20 – 13:40	Dr Mayurakshee Gangopadhyay	India	Bridging the Gaps Between Human Intelligence and Artificial Intelligence in the Field of Mental Health Care and Services
13:40 – 14:00	Dr Gopikanta Suna	India	Positive Mental Health Among Undergraduate Students of Odisha In Relation to their Demographic Variables
Comfort Break			

12:20 – 14:00	Parallel Session 2C: EDUCATION [Presentation time is 15 minutes and 5 minutes of Q&A] Chairperson: Dr Victor Muchemwa Rapporteur: Lydia Mireku		
Paper Presentations			
Time	**Name**	**Country**	**Title**
12:20 – 12:40	Ulana Plawuszczak Pidzamecky	United Kingdom	Ukraine during crisis: practitioner perspectives on sustaining and reinforcing teaching and learning
12:40 – 13:00	Julie Robinson	United Kingdom	Cristo Rey Schools in America
13:00 – 13:20	Malak Amanullah Khan	Pakistan	Insights into Behavioral Challenges in ASD Children in Peshawar Autism Centers and Parental Perspectives on its Management: A Mixed Method Study
13:20 – 13:40	Md Mujahid Alom	India	Perceptions of Mobile Learning among Senior Secondary Students their Parents, and Teachers During the Pandemic Era
13:40 – 14:00	Adams Alex	India	Teaching English Through Blended Learning for Developing the 21st Century Skills of UG Students: An Experimental Study
Comfort Break			

VALEDICTORY SESSION		
14:25 – 14:30	House Keeping Announcements	MC
14:30 – 14:35	Introduction to the Valedictory Session	Dr Sarita Parhi, Principal, LSME
14:35 – 14:45	Overview of the Conference Proceedings	Professor Stephen McKinney, Conference Chairperson
14:45 – 14:50	Announcement of the 12th LSME International Research Conference	Dr Ravi Kumar, Conference Convener
14:50 – 14:55	Special Remarks by the Guest of Honour	Dr Clement Sinyangwe, President for ICT Association of Zambia & Head of ICT, Chalimbana University, Zambia
14:55 – 15:05	Valedictory Speech by the Chief Guest	Professor William Phiri, Vice Chancellor, Chalimbana University, Zambia
15:05 – 15:10	Vote of Thanks	A Delegate – Dr Shelly Aggarwal
	Group Photo & Closing of the Conference	

DIGNITARIES AND SESSION FACILITATORS

CHIEF GUEST		
H.E. Dr Durga Bahadur Subedi	Ambassador of Nepal to Japan	Nepal
Professor William Phiri	Vice Chancellor, Chalimbana University	Zambia

GUESTS OF HONOUR		
Professor Rajan Welukar	Vice Chancellor, ATLAS Skilltech University, Mumbai	India
Professor William Phiri	Vice Chancellor, Chalimbana University	Zambia
Dr Clement Sinyangwe	President for ICT Association of Zambia & Head of ICT, Chalimbana University	Zambia

KEYNOTE SPEAKERS		
Professor Stephen McKinney	University of Glasgow	UK
Professor Peter Gray	Nord University	Norway

CHAIRPERSONS		
Professor Stephen McKinney	University of Glasgow	UK
Martin McAreavey	University of Bolton	UK
Professor Peter Gray	Nord University	Norway
Dr Victor Muchemwa	London School of Management Education	UK

RAPPORTEURS		
Dr Dolly Jackson-Sillah (Lead Rapporteur)	London School of Management Education	UK
Lydia Mireku	London School of Management Education	UK
Dr Minakshi Kishore	London School of Management Education	UK
Dr Kolawole Farinloye	London School of Management Education	UK
Harsha Subhashana	London School of Management Education	UK
Ravini Wickramasinghe	London School of Management Education	UK

SPECIAL RESEARCH PAPER

RECOVERING SCHOOL EDUCATION IN TIMES OF CONFLICT AND WARFARE: UKRAINE AND GAZA

Stephen J. McKinney, Sarita Parhi, Ravi Kumar, Hassan Shifau and Peter Gray.

INTRODUCTION

The effects of armed conflict and war are crippling for the welfare of the people, the economy and social-cultural infrastructure of the countries affected. Without doubt, the most vulnerable, the young, the old, the sick and the disabled suffer the most. Children and young people suffer the traumas of armed conflict and warfare, and their school education is often disrupted or it is suspended. In some parts of the world there are deliberate attacks on the pupils and teachers and the educational infrastructure. There are also interventions in the school curriculum by occupying forces to 're-educate' children into a particular ideology. These attacks and interventions are serious violations of the human rights of the child and are grave violations against children in times of war. This paper examines the effects of conflict and warfare on the school education of children and the ways in which schooling can be recovered, in some form, in these situations. The paper will focus specifically on the ongoing wars that are raging in Ukraine and Gaza. We fully acknowledge the plight of children and the disruption caused to their school education in many other parts of the world. There is disruption to school education caused by armed conflict and war in Syria, the Democratic Republic of Congo, Sudan, Myanmar and in Yemen.

EFFECTS OF CONFLICT AND WAR

In recent years, there have been new ways of understanding the havoc and destruction caused by armed conflict and war. This has been focussed on the damage caused to the urban infrastructure and the implications of this damage for the continuation of civil life and the continuing health and wellbeing of the citizens. Damage caused to buildings during war can be interpreted as collateral damage, but when the attacks are a deliberate attempt to undermine and destroy the urban infrastructure, this amounts to urbicide (Coward, 2009). This term came into use during the Bosnian war and has been applied to many conflicts since then. Urbicide destroys the working, living and recreational spaces for daily life. It also destroys the architectural and cultural heritage of a specific urban setting (Sobout, 2024). In a sense, it can be considered to be part of a process to kill collective memory (Golańska, 2022).

One of the (many) effects of armed conflict and war is, of course, the impact on education. This entails destruction and damage to the educational infrastructure through attacks on schools, Colleges and universities, creating serious, often deadly, dangers for students and teachers and the disruption of learning. The intentional systematic attacks on education have been termed 'Educide':

> *'Educide' is the mass destruction of a country or region's educational infrastructure because of war, invasion, conflict, terrorism or mass killings. The term 'Educide' combines "education" and "genocide" to describe the devastating impact of war, conflict, terrorism or mass killings on the educational infrastructure of a country or region. This destruction not only involves physical damage to schools, universities and other educational facilities but also encompasses the loss of teachers, students and the disruption of learning opportunities (Iriqat et. al., 2025).*

This combination of education and genocide to describe the attacks on education is a useful term and sometimes the term scholasticide is used, almost interchangeably for educide, or is used alongside educide (Al-Botmeh, 2025; Salameh, 2025). We argue that our understanding of the damage that is caused by war on education can be deepened if we use three related but distinct terms: educide, scholasticide and epistemicide. We will adopt and adapt the distinction made between these three terms by Benraad (2024). In our understanding, Educide refers to the impact on the people, the teachers, pupils and students. scholasticide refers to the destruction of

the physical infrastructure of education (buildings and resources) and epistemicide refers to the attempt to erase all local knowledge, or related knowledge and any alternative narrative about the war that would challenge the official narrative (Benraad, 2024). It is to be noted that sophicide is a variation of epistemicide (Palestinian Feminist Collective, 2024).

All these three forms of attacks on education affect the current and future generations of pupils and students. Current pupils and students face physical dangers and serious disruption to their educational progress and future generations face the prospect of rebuilding a severely damaged education infrastructure. A single form of these attacks, or any combination of the three, constitutes a serious violation of the human right to education, as enshrined in the Universal Declaration of Human Rights, article 26 and the United Nations Convention on the rights of the Child, article 28 (United Nations, 1948, 1989). Any attack on schools or educational institutions or attacks on children and teachers is one of the six grave violations against children in times of war: Attacks against schools and hospitals (UNICEF, 2024). Schools, like hospitals, should be safe spaces, even in times of conflict or war.

UKRAINE

On the 24th of February 2022, the Russian Federation launched an attack on Ukraine. The violence quickly escalated, and this has disrupted the school education of around 4 million children in Ukraine (United Nations, 2022; Save the children, 2024). Hundreds of thousands of children have become internally displaced and around two million children have been externally displaced, living as refugees. Many of these externally displaced children have been separated from a parent. School education has been very seriously affected by the war. Some of the more recent reports indicate that around 1,600 schools in Ukraine have been damaged or destroyed (UNICEF, 2025). This is scholasticide: the destruction of the physical infrastructure of education. Some families that live near the front line in Ukraine have now become too scared to send their children to school because of the attacks on schools.

There is clear evidence of educide in Ukraine: the impact on the people, the teachers, pupils and students. Children are experiencing many kinds of trauma associated with the war and the impact on their schooling. In early 2025, it was reported that one fifth of the children in Ukraine had lost a close friend or relative since the Russian invasion (UNICEF, 2025). More than 2,500 children have been killed or injured. It is not surprising that an increasing number of children are struggling with poor emotional and psychological well-being. Similarly, a high percentage of teachers are stressed and anxious about work and about safety at work and travelling to work.

In the four regions of Ukraine that were annexed by the Russians in 2022, there is clear evidence of epistemicide: the attempt to erase all local knowledge, or related knowledge and any alternative narrative about the war that would challenge the official narrative. The invaders have imposed a Russian curriculum on the schools and there is restricted access to any education in the Ukrainian language (Janowski, 2025; United Nations, 2025a). They have also exposed children to war propaganda to justify the invasion of Ukraine (United Nations Human Rights, 2025). This is accomplished by lessons that claim that those who live in the occupied regions are actually Russian people, and the Russian army has liberated them. This is compounded by History textbooks that have been introduced in these schools that do not represent Ukraine as a separate country. There is a failure to respect Ukrainian culture and attempts to supress all vestiges of Ukrainian identity. One example of this is that children and their parents have been threatened or punished for speaking in the Ukrainian language. Similarly, there are risks for those children who attend online lessons that focus on the Ukrainian curriculum. Those parents who have kept their children at home to follow the Ukrainian curriculum online have been threatened and intimidated and, in extreme cases, they have been told that their children might be removed from their care. This is all follows the same pattern of the imposition of the Russian curriculum in Crimea that commenced in 2014 (the first year of the Russian occupation).

RECOVERING SCHOOL EDUCATION IN UKRAINE

There have been a number of different responses to the damage to schools and the dangers associated with children attending school during warfare. One response has been to operate schools online. In some cases, this has, more or less, been a continuation of the online schooling enforced by the effects of Covid-19 (Doombos, 2025). While this appears to be a viable solution for this context, there are many challenges in sustaining the online learning. Russian strikes on the energy infrastructure, power cuts and loss of internet connections all have serious effects and lead to learning loss as children are unable to access online lessons (Save the Children, 2024). Further, children lose the benefits and support of face-to-face learning with teachers and the social contact with other children and, consequently, can feel socially isolated.

Another response is that parents arrange for their children to attend private schools, though parents often have to work very hard and make significant sacrifices to pay for this form of schooling. Private schools, unlike most other schools in Ukraine, have bomb shelters and the children are safer. Children in schools with bomb shelters have been trained to respond immediately to air raid sirens. In the mornings, they know to pack water, snacks and a phone charger in case they have to spend time in the bomb shelter (Norwegian Refugee Council, 2025). One notable initiative is the opening of underground schools. This began with schools being relocated to underground metro stations, for example, in Kharkiv (Beketova & Beck, 2025). This has now progressed to custom built schools that are constructed to be bomb and radiation proof. Another important development is the intervention of the United Nations Development Programme (UNDP) to rebuild eight war damaged Ukrainian schools and plans to extend the programme of rebuilding schools (Samus, 2025). These schools will be constructed to be energy efficient and will include alternative power systems.

GAZA

The war in Gaza was prompted by the actions of Hamas on the seventh of October 2023. Hamas and allies fired thousands of rockets into Israel and attacked civilians in towns near the border. Over 1,180 innocent people were killed, and they took 251 hostages (House of Commons, 2025). Israel responded swiftly with the invasion of Gaza, and the Israeli Defence Forces (IDF) have inflicted vengeance on Hamas and the people of Gaza. Recent reports from Gaza recount that 90% of schools and university buildings have been damaged or destroyed (United Nations 2025b). This means that 658,000 children are unable to attend school, and many have not attended school for nearly two years. Israeli security forces have illegally used educational buildings for military purposes United Nations 2025c). There is also evidence of Hamas using a school for military purposes.

Pupils, teachers, students and lecturers have come under attack. This example of educide is part of the disproportionate and illegal actions of the IDF, acting on the instructions of the Israeli government. This has been described as genocide by UN experts, a term refuted by the leader of the Israeli government and has also been described as an 'apocalyptic humanitarian catastrophe' by the Permanent Observer of the State of Palestine to the United Nation (United Nations, 2025d, 2025e; The Times of Israel, 2025).

The widespread destruction of schools and universities means that the water and energy supply have been disrupted or discontinued, and the surrounding areas have often been destroyed. This includes playgrounds or recreational areas. Further, many of the resources contained in the buildings have been destroyed: furniture, equipment and books (Iriqat et. al., 2025). Libraries and cultural heritage sites have also been targeted and destroyed (United Nations 2024). Religious and cultural sites in Gaza have been destroyed, and artefacts have been destroyed or removed and, in some cases, looted (United Nations 2025b). These religious and cultural sites are part of the historical identity and distinctiveness of the Palestinian people. While this is technically covered by urbicide we can introduce a new term, culturicide to describe the deliberate destruction of the historical, cultural and religious buildings. Culturicide has a serious effect on the shared identity and collective memory of a group of people.

The United Nations reports that UNRWA schools (United Nations relief and works agency) have been attacked in Gaza and UN schools have been stormed and forcibly closed in Jerusalem by the IDF (United Nations 2025f). Six UNRWA schools were forcibly closed in East Jerusalem in May 2025. This affected 800 children and very few have

managed to enrol in other schools (UNRWA, 2025). In the Northern West Bank, ten UNRWA schools have been forcibly closed which means that over 4,000 children will not be returning to school in September 2025.

There is, therefore, clear evidence of educide and scholasticide. There is also evidence of epistemicide as children cannot formally learn about their language and culture because there are so few children attending school.

RECOVERING SCHOOL EDUCATION IN GAZA

Recovering school education in Gaza is highly problematic and will not be possible in any scale until the hostilities cease. Nevertheless, there have been some attempts at recovery. Some have access to temporary learning spaces. In August 2024, the UNRWA launched the 'back to learning' programme (UNRWA, 2024). While this was focussed on providing safe places to play and informal learning, the aim is to introduce formal learning as soon as is possible. Similar to Ukraine, the use of online learning has been invaluable. Many children are being taught online or using self-leaning materials. One digital platform, Tammal e-learning was used during the Covid-19 pandemic by the Palestinian authorities and was relaunched in February 2025 for children displaced in Gaza or outside Gaza (New Internationalist, 2025).

CONCLUDING REMARKS

We have provided evidence of educide, sholasticide and epistemicide in Ukraine and Gaza. We have also made a distinction within urbicide and propose culturicide as a term that explains the attack of the historical, religious and culture memory of a people. There has been deliberate destruction of schools and universities, the killing, wounding and terrorising of children and teachers and concerted attempts to erase culture, knowledge and practices in both Ukraine and Gaza. Apart from the very serious violations of human rights, the inhumane actions of Russia and Israel are designed to destroy the fabric of Ukrainian and Palestinian society and deny children and young people a viable future. They are denying children and young adults any kind of consistent access to formal learning contexts and the opportunities to acquire knowledge and qualifications. There are some very laudable attempts to recover learning opportunities and the underground schools in Ukraine offer schooling and safety for the children. Somewhat ironically, the advances made in online learning and teaching during Covid 19 have proved to be invaluable in both Ukraine and Gaza, and for those children who are externally displaced.

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PART 2 - ABSTRACTS OF PAPERS PRESENTED AT THE CONFERENCE

COMMERCE & MANAGEMENT

ABSTRACT – 1

EFFECT OF CORPORATE ETHICAL ISSUES ON FIRM'S FINANCIAL PERFORMANCE: AN EMPIRICAL ANALYSIS FROM GLOBAL ENVIRONMENT

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The purpose of the study is to analyse how the corporate ethics influence the financial performance of enterprises. The study not only finds the levels of relation between corporate ethical disclosures and firms' performance but also analyse the degree of association between various corporate ethics and firms' performance.

Top 100 global firms based on market capitalization rate of March 2024 are used in the analysis as samples. Data has been collected for the period of ten years from 2013-14 to 2022-23.

The study treats corporate ethics disclosures as an independent variable. Corporate ethics are measured by four sub-indexes such as corporate ethical disclosures towards employees, corporate ethical disclosures towards environment, corporate ethical disclosures towards society and corporate ethical disclosures towards corporate governance. The financial performance which is dependent variable is incorporated in this paper and measured by various profitability ratios. ROA, ROE, and Tobin's Q ratio.

Validity of the sub-indices of corporate ethics disclosures are analysed through KMO test.

ADF (Augmented Dickey Fuller) test has been done to check the stationarity of the time series data.

Multicollinearity of independent variables are checked through VIF (variance influence factor).

Robustness of panel data is analysed through FE (Fixed Effect) method to find out the effect of corporate ethics on firms' value. The study reveals that corporate ethical disclosures towards environment and Governance have a significant effect on ROA, and Tobin's Q ratio. However, ROE is significantly affected by corporate ethical disclosures towards environment only. But corporate ethical disclosures towards society have a negative significant effect on Tobin's Q Ratio. So we can conclude that financial value of a firm is significantly affected by disclosing corporate ethics towards environment and governance.

Keywords: Corporate Ethics, Firms Performance, KMO Test, ADF Test, Multicollinearity Test, Panel Data, FE Method.

GEL Classification Code: C23, M14, M40, M42, and M480.

ABSTRACT – 2

ACCESS TO FINANCE AND WOMEN'S ENTREPRENEURSHIP DEVELOPMENT IN NEPAL

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This study explores the factors influencing access to financial resources for women entrepreneurs in Kathmandu Valley, Nepal, highlighting the crucial role of financial education. Despite efforts by the Nepal Rastra Bank and an increase in female literacy, barriers to financial access persist, particularly affecting women entrepreneurs. Using a sample of 534 women entrepreneurs, the study employs descriptive and quantitative methods to examine the impact of entrepreneurial characteristics, firm characteristics, financial attributes, and policy frameworks on financial accessibility. The findings indicate that financial attributes and policy frameworks significantly influence access to finance ($p<0.05$), while entrepreneurial and firm characteristics have a lesser influence. This suggests that enhancing financial education and creating supportive policies are key to improving financial access for women entrepreneurs. The results align with global research, suggesting the need for targeted interventions to empower women in entrepreneurship. This research contributes to understanding the challenges faced by women entrepreneurs in accessing finance, emphasizing the importance of financial education and policy support. It provides valuable insights for policymakers, educators, and financial institutions to foster an inclusive entrepreneurial environment, thereby supporting economic growth and gender equality in Nepal.

Keywords: Financial Inclusion, Economic Empowerment, Business Challenges, Capital Market, Small and Medium Enterprises (SMEs).

ABSTRACT – 3

INFLUENCE OF LINE EXTENSION STRATEGIES ON CONSUMER BUYING BEHAVIOR IN THE BRANDED FOOD INDUSTRY

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This research investigates the impact of line extension strategies on consumer buying behaviour in the branded food products sector. Line extension, a common marketing strategy where a parent brand launches new products under the same brand name but with different attributes (e.g., flavours, sizes, or nutritional profiles), is often employed to leverage brand equity and attract diverse customer segments. The study aims to analyze how these extensions influence consumer perceptions, brand loyalty, and purchase decisions.

PURPOSE

By examining various case studies and employing quantitative methods such as surveys and statistical analysis, the study will provide a comprehensive analysis of the variables that shape customer preferences along with the efficiency of line extension tactics in increasing market share and profitability for food brands.

KEY FINDINGS

This study will shed light on the behavioural and psychological aspects of consumer decision-making in the context of branded food products. The research will explore variables such as brand familiarity, perceived quality, innovation, and risk associated with new product trials. Additionally, it will assess the role of demographic factors and individual differences in shaping buying behaviour.

CONTRIBUTION

The outcomes of this study will offer valuable insights for marketers and brand managers in the food industry, guiding them in developing successful line extension strategies that resonate with consumers and foster long-term brand loyalty.

METHODOLOGY

The research is based on primary data collected from 150 consumers by conducting a survey using a structured questionnaire method. To test the reliability of the questionnaire, the Cronbach Alpha test is applied. SPSS software is used for data analysis. For this study, the objective and the hypothesis will be validated through descriptive as well as inferential statistics.

Keywords: Brand Equity, Customer Perception, Brand Loyalty, and Customer Preferences.

ABSTRACT – 4

MICRO ENTERPRISE & ENTREPRENEURSHIP 'IN TIMES OF GROWING UNEMPLOYMENT, THE NEED FOR NURTURING AND SUSTAINING THE CONCEPT OF MICRO ENTERPRISES AND ENTREPRENEURSHIP - ARE WE PREPARED ENOUGH?'

Dr Tapati Mukherjee
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Micro enterprise and entrepreneurship is a crucial field in today's technical world. Micro enterprise is also known as 'Micro business' which employs few people, less than nine. Entrepreneurship is a typical marketplace which reduces the burden of job creation and encourages self-employment with limited resources. This paper aims to highlight on Micro enterprises with emphasis on the skills that are required for entrepreneurship including creativity, problem- solving and innovation to identify opportunities and solutions. Now the question is will it be possible to generate employment opportunity through different skills like sports, visual arts etc. Therefore, it is extremely important to focus on advancement of skill, relevant to the emerging economic development, so that India can transform into Knowledge Economy. The researcher will devote special attention on interviewing female and male entrepreneurs separately across various fields of business to get a practical idea on it.

During the pandemic, the micro enterprises encountered huge losses and efforts were made to compensate them during the annual budget announcement post the pandemic. Today India's micro enterprises number stands at 63.5 million which has increased considerably. A paradigm shift has led towards 'owning businesses' since the instabilities of the job environment couldn't be ignored.

Information was gathered from 15 small enterprises and different types of Nano entrepreneurs such as hawkers in and around Mumbai suburbs to understand their workings, business model and strategy for long term sustenance. What drove them to start enterprises? Did they acquire special skills? What lacks in sustaining their businesses in the long run and what more is needed to uplift these businesses? These questions were highlighted in the survey. Compilation of their responses (primary data) and mapping their responses against the reality of the measures (secondary data) taken for these businesses (so far) will form the essence of this paper.

Entrepreneurship in India is a gateway to many opportunities for people as it creates job and provides a dignified, means of livelihood to many below the poverty line, besides its significant contribution to the overall GDP growth. It positively impacts the local economy with an excellent capacity to accommodate an effective skill development program. There are several schemes launched to promote micro entrepreneurship in the country by PM namely Emergency credit line guarantee scheme (ECGLS) that provided credit to more than 130 lakh micro enterprises, Raising and Accelerating MSME performance (RAMP) programme, 50,000 Cr rupees equity infusion through MSME Self-Reliant India Fund, Udyam, e-Shram, National Career Service (NCS) and Aatama nirbhar programs (self-reliance programs). Studying the efficacy of these programs also forms an important part of this paper to arrive at implementable recommendations.

Keywords: Microenterprise, Micro Entrepreneurship, Skill Development, Nano Business.

EDUCATION

ABSTRACT – 5

TEACHING ENGLISH THROUGH BLENDED LEARNING FOR DEVELOPING THE 21ST CENTURY SKILLS OF UG STUDENTS: AN EXPERIMENTAL STUDY

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Present education system needs to adopt advanced approaches, methods and techniques which will allow the under graduate students to acquire and practice 21st century skills effectively. A study has been conducted among under graduate students to analyse their way of learning, competence and skills and to develop their 21st century skills. It has been found that students were finding difficulties in communication, critical thinking, problem solving and digital competence. A sequence of activities on 21st century skills and Blended learning has been presented to the students using interactive e-Games, Web 2.0, Augmented Reality and Virtual Reality, Info-graphics, Brain Gym, Vlog, Social Websites. Students were able to learn through Blended Learning and develop 21st century skills effortlessly. There were notable developments from pre-test to post-test among students. Rubric analysis has been used as assessment technique to assess the competence and performance of the students.

Keywords: Blended-Learning, 21st Century Skills, Digital Competence, Online Education.

ABSTRACT – 6

EFFECT OF METAEMOTIONAL STRATEGIES ON DIVERGENT PRODUCTION ABILITIES AND COGNITIVE DISSONANCE

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Human beings experience subjective stimuli and responses called emotions such as joy, sadness, fear, or anger. Emotions have been studied in several scientific disciplines like biology, psychology, neuroscience, psychiatry, anthropology, and sociology as well as in business management, advertising, and communications. As a result, distinctive perspectives on emotions have emerged, appropriate to the complexity and variety of the emotions themselves. In the present study researchers used this variable in the field of education in a new and much needed perspective i.e. metaemotion which means to know about one's own and others' emotions. This study aims to study the effect of metaemotional strategies on Divergent production abilities and Cognitive Dissonance. Experimental Design consisting of controlled and experimental groups was used in this study. For this purpose pre-test was conducted among 50 adolescents of class 11. Pre-test of divergent production abilities and cognitive dissonance was given to class 11 students. Scores were equated and they were further divided into two groups' i.e. experimental group and control group. Modules designed by the researchers pertaining to Metaemotional strategies were delivered to the experimental group for one month and ordinary teaching was done with the Control group during this period. At the end of the experiment, post-test was given related to divergent production abilities and cognitive dissonance to verify the effect of metaemotional strategies on the students of both the groups. The results highlight the importance of metaemotional strategies as it proved to be having a significant effect on Divergent production abilities. The more learners are aware about their emotions, the more they are creative, which helps them recognize their strengths and weaknesses. In other words the students' metaemotion allowed them to be more creative. The study also demonstrated that there is significant effect of metaemotional strategies on cognitive dissonance of senior secondary school students thereby rejecting the null hypothesis that there exists no significance effect of metaemotional strategies on Cognitive Dissonance. Hence, Metaemotion can duly affect individuals' thoughts, beliefs, and behaviors. The effect of metaemotional strategies may vary depending on individual differences and the specific circumstances surrounding the variables used in the study and other related variables.

Keywords: Metaemotions, Divergent Production Abilities, Cognitive Dissonance, Adolescents.

ABSTRACT – 7

SERVQUAL: MEASURING SERVICE QUALITY FOR DISTANCE EDUCATION IN PONDICHERRY UNIVERSITY: A CASE STUDY

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The purpose of this paper is to investigate service quality of MBA program offered by DDE, Pondicherry University. Specifically, this study investigates the five dimensions of SERVQUAL instrumentation (reliability, assurance, tangibles, empathy, and responsiveness). The study also examines the validity and reliability of SERVQUAL in assessing Distance Education of Pondicherry University. A total number of 300 MBA students studying through distance education in Pondicherry University are considered to participate in this study. The objectives of this study is to find out the expectations of MBA students.in all five dimensions of service quality, and to identify the gaps between perceptions and expectations. The gap analysis between service perceptions and expectations to be analysed in this study and to identify the measures to improve service quality Consequently, for the institution to improve the service delivery in order to minimise the gap between the perceptions and expectations of MBA students of DDE, Pondicherry University.

Keywords: Distance Education, DDE, SERVQUAL, Service Quality, Perception, Expectation.

ABSTRACT – 8

THE IMPACT OF THE RECENT ADOPTION OF FOREIGN EDUCATIONAL PRACTICES ON TEACHER TRAINING PROGRAMMES IN INDIA-A QUALITATIVE STUDY

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In view of the recent global conflicts and changing power structures, many countries have begun to adopt/ implement policies conducive for their own growth. This is particularly true of a country like India, which made certain drastic changes in its foreign and internal policies during the last decade. In fact, the present Indian government which was voted to power in 2024 for a third consecutive term, since its inception, had been striving to implement the New Education Policy which they finalized in 2020.

An explicit change perceived is in the area of teacher education where a new Integrated Teacher Education Programme (ITEP) is being introduced. The investigator a teacher educator by profession who for two decades had been teaching the traditional Bachelor of Education programme but recently commenced teaching the new ITEP course poses a series of questions related to the new programme. They include ones related to the lowering of age for joining secondary teacher education programmes, the prescribed content for study, and the problems likely to incur in integrating Education courses with specialization in subjects taught at the Under Graduate level.

Through a review of the new curriculum of ITEP, collection of data from institutes which transact the new ITEP curriculum and own experience of teaching trainees of both the traditional BEd courses and the new ITEP, the investigator identifies certain lacunae and proposes solutions to plug the loop holes. It is hoped that the findings of the study would open the eyes of authorities in developing countries keen on adopting foreign educational practices for up skilling its teacher-training sector to meet the demands of an increasingly globalized world.

Keywords: Content Knowledge, Curriculum, Pedagogic Knowledge, Teacher Education, Tradition.

ABSTRACT – 9

BEYOND BORDERS: UNPACKING THE DREAMS OF NEPALI STUDENTS PLANNING TO STUDY IN AUSTRALIA

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The central theme of this study is to explore the dreams and aspirations of Nepali students planning to study in Australia, with a specific focus on the contextual dynamics of Pokhara. This research is highly relevant to the conference theme of "Re-Visioning Practice in Education, Health Care, and Business Amidst Global Challenges" as it delves into the educational aspirations that are shaped by global trends and local socio-economic conditions.

For this study, Pokhara was selected using purposive sampling, acknowledging the significant presence of approximately 35 abroad study consultancies in the area. Out of these, 7 consultancies were purposively selected. The student sample size was determined through convenience sampling, culminating in a total of 202 respondents. Primary data were collected using structured questionnaires through direct interviews with students from 10 consultancies. To achieve the study's objectives, both descriptive and inferential statistical analyses were employed.

The findings reveal that the majority of students are teenagers, unmarried, and from low-income families. Most respondents have secondary-level education, predominantly in the management stream, and half had received a B grade in their current education status. The majority completed their education in private institutions.

Gender-based differences emerged, with male respondents predominantly having completed secondary education, while female respondents were more likely to have completed bachelor's degrees, master's degrees, or other qualifications such as nursing. The primary source of information about studying abroad was family members. Most respondents relied on their own judgment or advice for making decisions about studying in Australia.

Key motivational factors for studying in Australia included academic quality, personal growth, career opportunities, and financial considerations. The study highlighted that career and life opportunities, improvement in English language skills, and a good academic experience are significant expectations influencing the decision to study in Australia. Societal influence factors were determined by sex and age, while family income influenced career opportunities. Moreover, personal growth and financial consideration factors showed significant relationships with educational status. The stream and GPA of current education were significantly related to career growth and academic quality.

Finally, the study identified that visa and immigration processes are major challenges for students deciding to study in Australia. These insights contribute to the broader discourse on educational practices amidst global challenges, aligning with the conference's focus on re-visioning practices in education.

Keywords: Educational Aspirations, Globalized Education, Nepali Students, Studying Abroad.

ABSTRACT – 10

THE EVOLUTION OF TEACHER EDUCATION IN INDIA: A COMPREHENSIVE ANALYSIS

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Education is the foundation of life. Education alone paves the way and nurtures the purpose of life. The value of education has always been maintained and noticed over the ages. Our nation's capable and effective educators are responsible for using education to transform society. Therefore, a vital component of every nation's educational objectives is providing high-quality teacher education. The ultimate goal of teacher education is to equip aspiring educators with the skills and competencies necessary to fulfill the demands of the teaching profession and set them up for success in the future. Without understanding the historical background of teacher education, it is impossible to fully comprehend the current state of teacher education in the nation. This paper aims at the development of teacher education over time and considers numerous initiatives and suggestions put forth by legislators and the government to raise the standard of teacher preparation.

Keywords: Education, Teacher Education, Ancient-time, National Education Policy.

ABSTRACT – 11

EMERGENCE OF DEI LITERACY AS GRADUATE COMPETENCY AND THE RESPONSES OF HIGHER EDUCATION: A CRITICAL REVIEW

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PURPOSE

To explore the rise and recognition of Diversity, Equity, and Inclusion (DEI) as core competencies in Higher Education (HE).

BACKGROUND

The significance of DEI has been increasing across organizations and institutions globally, underscoring the need for DEI literacy among graduates joining the workforce. With the emphasis on DEI in the Sustainable Development Goals (SDGs) of UNESCO, frameworks of the European Higher Education Area (EHEA), and the guidelines of the Association of American Colleges and Universities (AAC&U), DEI literacy is being recognized as a fundamental graduate competency. Higher Education Institutions (HEIs) are increasingly held responsible for creating diverse, inclusive, and equitable learning spaces and experiences and developing DEI-literate graduates. HEIs are reimagining their curricula and instructional practices to build a pool of graduate DEI-related attributes, like empathy, critical thinking, and cultural competency, required to create a diversified global workforce for the contemporary and emerging job markets. Institutions are accountable for professional development through curricular design, instructional planning, measurement, and reporting. Beyond legal and strategic considerations, there is a growing recognition of the ethical and moral imperatives of promoting DEI in education. As universities recognize the importance of embracing large and diverse learner communities, they also take the responsibility to create inclusive and collaborative learning opportunities for their students to mature into DEI-literate graduates. While opportunities to promote diversity in leadership roles, foster collaborations with diverse communities, and integrate DEI into research and curriculum development, several challenges still remain in overcoming change resistance, resolving unconscious biases, managing resource limitations, and maintaining institutional DEI commitment.

OBJECTIVE

To critically examine the institutional responses to the growth in DEI and the emergence of DEI literacy as a graduate competency through a literature review and the study of HE systems, including curriculum creation, instructional strategies, assessment methodologies, and inclusive policies.

METHODOLOGY

This paper uses bibliometric studies and a systematic literature review to explore DEI growth, trends, implications, and responses in HE.

PRACTICAL IMPLICATION

The study can guide institutional DEI response strategies like curricular and instructional interventions, community involvement projects, and faculty training.

ORIGINALITY/VALUE

The article examines the evolution of DEI as a graduate competency tracking the institutional response to this growth in HE, and contributing to the continuing efforts of HEIs in fostering DEI literacy in their graduates.

Keywords: Diversity, Equity, Inclusion (DEI), DEI Literacy, Higher Education, Graduate Attribute, Competency.

ENVIRONMENTAL SCIENCE

ABSTRACT – 12

COMMUNITY AWARENESS AND PREFERENCES FOR PARTICIPATING IN ECOTOURISM ACTIVITIES IN EPPING FOREST, LONDON, UNITED KINGDOM

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More recently, ecotourism has been defined as responsible travel to a natural area, with sensitive purposes such as acquiring knowledge, learning about the local culture, and enjoying natural environments. The principle of socio-environmental sustainability is the basis of ecotourism. Nonetheless, further research in the literature is required to fully understand the elements that affect community participation in ecotourism in the ecosystems surrounding metropolitan centres. Despite the fact that the term has always been ill-defined and contentious, writers have examined and put forth a few essential guidelines to comprehend ecotourism: it must be grounded in nature, incorporate sustainability, education, preservation, and distribution of benefits, as well as ethics, responsibility, and awareness.

This study examines how ecotourism supports community-based ecosystem management using the Epping Forest (EP) in London, United Kingdom, as a case study. In-situ and reconnaissance survey-style approach was used to ascertain the ecological resources, whereas the social willingness to participate in ecotourism and the benefits that the participants preferred was assessed using an opinion-poll case study methodology.

Results showed that EP is a 2,400-hectare forest with natural ecosystems, located on the fringe of the London built-up area, between Greater London and Essex, according to the findings. It's London's largest woodland. The forest was discovered to have a diversity of habitats and a wealth of ecological resources, making it an important area for a variety of flora species: pollarded trees and secondary woodland tree species like Pedunclate oak (Quercus robur) ($p=0.012$), European beech (Fagus sylvatica) ($p=0.031$), silver birch (Betula pendula) ($p=0.015$). Fauna species include: fallow deer (Dama dama) ($\alpha \geq 0.15$), muntjac (Muntiacus reevesi) ($\alpha \geq 0.18$), and European adder (Vipera berus) ($\alpha \geq 0.13$). Study further showed that the forest attracts large numbers of mountain bikers (10.2%), Horse-riding (13.7%), as well as footballing activities (7.2%). Majority of respondents believed that their participation was essential to the development of the EP ($\alpha \geq 0.361$) and that ecotourism would promote local environmental conservation.

In conclusion, the EP makes a significant contribution to local ecotourism activities. As a result, local perspectives on ecotourism indicated that determining the resources available and the residents' willingness to engage in ecotourism before implementing is highly important. It was suggested that further research be done on the participants' interest in taking part in ecotourism studies and their understanding of how ecosystems and society interact.

Keywords: Ecotourism, Epping Forest, Ecological Resources, Horse-Riding, Environmental Conservation.

HEALTH SCIENCE

ABSTRACT – 13

EXPLORING THE LANDSCAPE OF SUPPLEMENT USE AMONG MALDIVIAN ATHLETES

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The landscape of supplement use among Maldivian athletes remains largely uncharted, despite the prevalence and potential impact of supplementation on athletic performance and overall health. Limited research exists regarding the types, patterns, and motivations driving supplement consumption among athletes in the Maldives. Additionally, factors such as cultural influences, availability, affordability, and regulatory oversight contribute to the complexity of supplement use within this population. The purpose of this study is to examine the use of food supplements among the athletes in Maldives. A quantitative survey method was employed where a Google Survey form was distributed online via different communication platforms. Approximately 300 responses were received from diverse athletes representing various discipline and competitive levels. Data was analysed using descriptive statistics, frequency distributions and chi-square tests and provides insights into the prevalence, patterns, and correlates of supplement use among Maldivian athletes. Preliminary findings indicate the prevalence of supplement use among athletes with the most common being Vitamins. The motivation to use supplements includes improved athletic performance, improved health, enhance recovery, and prevent injuries. The results indicate that the majority uses supplements to improve performance, (55%), enhance recovery (48%), improve overall health (41%), Prevent Injury (38%), boost energy levels (30%), increase muscle mass (30%) and cater for nutrient deficiencies (25%). These preliminary findings provide a snapshot of the landscape of supplement use among Maldivian athletes and highlight the complexities and nuances associated with supplementation practices within this population. These findings can be used to further explore and undertake research and make general policy guidelines to protect the clean athlete and promote healthy lifestyle.

Keywords: Supplements, Clean Sport, Athletes, Lifestyle, Sports Ecosystem, Education.

ABSTRACT – 14

TREND ANALYSIS OF OUT-OF-POCKET EXPENDITURE IN HEALTHCARE IN NEPAL

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Healthcare financing in Nepal predominantly relies on out-of-pocket (OOP) expenditure, imposing a significant financial burden on households. This paper analyses the trends and determinants of OOP expenditure in healthcare over the two decades. Systematic literature review was done to prepare this study. Research papers of open sources were abstract to find the study gap and Data from the Nepal Living Standards Survey (NLSS) and the World Health Organization (WHO) Global Health Expenditure Database, this study examines the patterns and magnitudes and impacts of OOP spending on health services in Nepal. The study reveals that OOP expenditure constitutes a substantial portion of total health expenditure in Nepal. Between 2000 and 2020, the share of OOP payments in total health expenditure consistently exceeded 50%, peaking at 61.9% in 2010 and slightly declining to 58.7% in 2020. The data indicates a significant increase in OOP spending over the years, driven by rising costs of medical services, pharmaceuticals, and diagnostic tests. Households in urban areas and those in higher income quintiles exhibit higher absolute OOP spending compared to rural and lower-income households. However, the financial burden, measured as the share of OOP expenditure in total household consumption, is disproportionately higher among the poor, indicating regressive impacts of OOP health payments. Approximately, 12% of households incurred catastrophic health expenditure (defined as OOP spending exceeding 10% of total household consumption), and 3% were pushed below the poverty line due to health expenses. Policy interventions aimed at reducing OOP expenditure have shown limited success. While the introduction of health insurance schemes, such as the Social Health Security Program (SHSP), and expansion of free health services have provided some relief, coverage remains low, and implementation challenges persist. Thus, strengthening the health insurance system, increasing government health spending, and ensuring equitable access to quality health services are crucial steps. Additionally, improving financial risk protection mechanisms and expanding the coverage of essential health services without OOP payments are essential to protect households from financial hardship. Thus, reducing OOP expenditure is imperative to enhance financial protection, promote equitable access to healthcare, and achieve universal health coverage. This study contributes to the evidence base needed to inform policy decisions and drive efforts towards a more sustainable and equitable health system in Nepal.

Keywords: Out-of-Pocket Expenditure, Healthcare Financing, Trend Analysis, Nepal, Financial Burden, Health Insurance.

SOCIOLOGY

ABSTRACT – 15

"GENDER DISPARITY AND WOMEN AT WORKPLACE ISSUES AND CONCERNS" A CASE STUDY OF THE AUTOMOBILE INDUSTRY IN TUMKUR DISTRICT OF KARNATAKA.

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Gender Sensitization involves raising awareness of gender equality, gender roles, gender sensitivity, gender diversity, and gender inclusion. It is the basic requirement to understand the sensitive needs of the particular gender. It assists us in examining our personal attitudes and beliefs that the realities that we thought we knew. The dimensions of discrimination and stigmatization against girls are rampant and due to fear of abuse, harassment, and exploitation, most of the women/girls remain silent and suppressed without raising their voices. This kind of mindset is inherent in the family itself, even in their society, and continues at the workplace.

Women in India often earn less than men for doing the same work, and they are also underrepresented in higher-paying jobs. According to the World Inequality Report 2022, Men in India earn 82% of the labor income while the share of women's earnings stands at a mere 18%. Violence against women is a major problem in India. According to the National Crime Records Bureau report, there were over 3, 71, 503 reported cases of violence against women in India in 2020. This includes cases of sexual assault, domestic violence, and other forms of abuse. The actual number of cases is likely much higher, as many incidents of violence against women go unreported. One major reason for this is the cultural stigma attached to women who have been victims of violence and stay away from expressing out or seeking help. Here researchers found that there is a big gap and continued gender inequalities across the globe have existed for decades to till today.

The objective of the study is to identify the socio-demographic profile of the respondents. To explore the issues and concerns of gender disparity in the workplace. Suggest suitable Social Work Intervention Strategies. Research Investigators gathered the primary data through the structured interview schedule and the observation method during the research interview.

The outcome of the study: The study outcome depicts that through gender sensitization training sessions reduce gender inequalities and biases in the workplace. In addition to this, it also assists working women to change their mindset and have high self-esteem and pride, decision-making, and speaking out when it is necessary.

Keywords: Gender Disparity, Women, Workplace, Automobile Industry.

TECHNOLOGY

ABSTRACT – 16

THE IMPACT OF FINTECH - BASED SOLUTIONS ON CUSTOMER EXPERIENCE IN THE STATE-OWNED INSURANCE COMPANY OF MALDIVES

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The business dynamics of the new insurance industry of Maldives is acutely impacted by fintech. FinTech has become indispensable in the financial services industry and its use is becoming increasingly prominent in the developing insurance industry.

This research aims to analyse the impact of FinTech-based solutions on customer experience of a state-owned insurance company, Allied Insurance. Explicitly, the study focuses on customer experience related to using fintech- based applications to access insurance service compared to traditional insurance services. The study also examines the apparent benefits and difficulties of FinTech for customers and whether FinTech has positively reformed customer experience in the insurance sector. The data for this survey will be collected through primary and secondary sources. A self-administered questionnaire will be hosted using Google Form, which will consist of general personal information, FinTech-based solution infrastructure, channels and tools and customer experience-related questions for the primary data collection will be used.

Keywords: Accessibility, Customer Experience, Customer Satisfaction, FinTech.

ABSTRACT – 17

BRIDGING THE GAPS BETWEEN HUMAN INTELLIGENCE AND ARTIFICIAL INTELLIGENCE IN THE FIELD OF MENTAL HEALTH CARE AND SERVICES

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With passing time advances in technology has proven to be an essential need even in the fields of education and health care. During and in the post covid period, there was visible influence of technology to continue with the education and also in providing online health care service. The same is still continuing in both the sectors with the help of different Apps and portals whichever suits the requirements. The introduction of artificial intelligence though was made decades ago, but the utilisation of it is at its peak in recent time. There are AI apps that are catering to the psychological needs of human beings (Minerva and Giubilini, 2023). The popular AI-driven apps in providing psychological counselling and support include Woebot, Wysa, Talkspace, Moodpath and Youper. AI can simulate human cognitive functions (Singh, 2023) through which it can provide the clients with a structured cognitive behaviour therapy which may or may not cater to everyone's needs and/or which may or may not prove to be beneficial in resolving the day to day crisis in life. These apps help in tracking mood and in providing personalized recommendations. These psychological apps are accessible and convenient and also can be used in community support. Despite all these unique features these apps lack many significant humane components to deal with the mental health issue like emotional intelligence, empathy, and of course human interactions of any kind (Higgins et al., 2023). Here arises a question and that is whether should these drawbacks hold back using those apps in the field of mental health care or should these drawbacks be surpassed by proper and effective utilization of those apps in dealing with mental health issues and in assessing psychological disorders? This present article is thus concerned in finding the drawbacks and possibilities of the AI apps in addressing mental health issues, and in providing therapy and solutions to the psychological problems of individuals (Talati, 2023), and also in suggesting reasonable ways to bridge the gaps between human intelligence and artificial intelligence in promoting mental health and well-being (Graham et al. 2020).

Keywords: Mental Health Care, Mental Health and Well-Being, Human Intelligence, Artificial Intelligence.

ABSTRACT – 18

"PERCEPTIONS OF MOBILE LEARNING AMONG SENIOR SECONDARY STUDENTS THEIR PARENTS, AND TEACHERS DURING THE PANDEMIC ERA"

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Mobile learning has emerged as a critical tool for delivering educational content and fostering student engagement amidst the challenges posed by the pandemic. The study aims to determine the perception towards mobile learning of senior secondary students, teachers, and parents in the pandemic era. The sample consisted of 300 participants, including 125 parents, 125 senior secondary students, and 50 teachers, through a purposive sampling technique from the schools of Budaun district, Uttar Pradesh, India. This study employed a cross-sectional quantitative approach to gather data through a structured questionnaire. The instrument used in this study was a structured questionnaire consisting of 45 items measured on a 5-point Likert scale. This study adhered to ethical guidelines, ensuring the rights and privacy of participants were respected throughout the research process. The study revealed that the mean score of students (140.13) is more than the teacher's (139.58) and parents' (139.53). The overall mean score across all participants was 139.79, with a standard deviation of 6.936; the study also indicated that the student parent's mother and father t-value (-0.011) and p-value (0.422) indicates a slight difference between male and female parents' perceptions of mobile learning is not significant. Teachers' perceptions towards mobile learning p-value of 0.381 are much higher than the joint significance threshold of 0.05; this indicates that the observed difference is not statistically significant. The study provides comprehensive insights into the effectiveness and challenges of mobile learning by examining perception towards mobile learning during the pandemic. Understanding these perspectives helps in identifying best practices and areas needing improvement in online pedagogy.

Keywords: Mobile Learning, Digital Learning, Online Education and Pedagogy.

PART 3 - RESEARCH PAPERS PRESENTED AT THE CONFERENCE

COMMERCE & MANAGEMENT

PAPER – 01

EFFECT OF CORPORATE ETHICAL ISSUES ON FIRMS' FINANCIAL PERFORMANCE: AN EMPIRICAL ANALYSIS FROM GLOBAL ENVIRONMENT

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INTRODUCTION

The disclosures relating to corporate ethics are called Corporate ethics disclosures (***Reynolds, M., & Yuthas, K. 2008***). The link between corporations and moral ideals has evolved throughout time, mirroring shifts in the government, economy, and society, as chronicled in the history of corporate ethics (***Wells, C. A., 2002***). A wide range of subjects is covered by Corporate Ethical issues, including resource management, corporate governance, human rights, labour standards, and climate change (***Crane, A. 2019***). Almost all big companies are bound to make Corporate ethical issues disclosures in their annual report at this stage (***Yang, S., & Allenby, G. M. (2000***). Some disclosures are mandated by law, and some disclosures are voluntary (***Staubus, G. J. 2005***). Stakeholders are made aware of a company's social responsibilities, operational impacts on the environment, and governance mechanisms that guarantee moral conduct and transparency through these disclosures (***Orts, E. W., & Strudler, A., 2009***).

NOVELTY OF THE STUDY

Although the idea of corporate ethics has been around for a while, financial performance analysis has just recently formally included it. Analysis of the qualitative and intangible factors because corporate ethics disclosures contain various intangible and qualitative data.

IMPLICATIONS OF THE STUDY

The study may provide insight into how corporate ethics issues contribute to long-term shareholder value creation (Wang, M. L., & Phillips-Fein, K. 2023). It opposes the conventional short-term focus of financial performance monitoring and promotes a more comprehensive viewpoint that views sustainability as a crucial element of corporate success. Corporate ethics and business ethics are the areas that businesses use to describe their performance on these issues. However, from the standpoint of the company, taking action entails investing. The question of whether the necessary investment and resources make financial sense is a major one on the topic at board meetings and pertinent committees.

LITERATURE REVIEW

Tsatsaronis, M et.al. (2024) a new CSR Index is proposed and established, drawing on worldwide standards and ISO 26000 norms. The findings highlight that there is a considerable positive association between CSR and corporate performance and value.

Li, X., Esfahbodi, A., & Zhang, Y. (2024) this study looks at how CSR affects the financial performance of Chinese listed companies. The results show that the government is ineffective in mediating this connection. This implies that businesses can strike an ideal balance between financial success and social responsibility. For the sake of society as a whole, more research is necessary to determine how the government supports this dynamic.

Zumente, I., & Bistrova, J. (2021) this study is the first to establish a connection between corporate governance ethics and overall financial performance. Of the 500 biggest public companies in the United States, 26.8% commit to moral conduct or highlight adherence to the code in their yearly reports. According to the research, ethical governance has a favourable effect on financial performance.

Chun, J. S., et.al. (2013). the internal mechanisms behind the relationship between financial success and corporate ethics are examined in this study, with an emphasis on organisational citizenship behaviour (OCB) and the collective organisational commitment of employees. These organisational micro processes emphasise how employee actions influence organisational financial outcomes.

Adams, C. A., & Kuasirikun, N. (2000). This study looks at ethical reporting from 1985 to 1995 in the annual reports of businesses in the UK and Germany. It contrasts the development of reporting practices in the two nations, exposing notable distinctions. German businesses matured earlier and reported more. The study investigates the variables that affect this discrepancy, such as industrial activities, laws, and societal and political forces.

Jo, H., & Kim, Y. (2008). The relationship between disclosure, corporate ethics, and the long-term success of seasoned equity offerings (SEOs) is examined in this study. Companies that provide a lot of information deal with fewer information problems, manipulate earnings less unethically and do better after the fact. The results imply that ethical financial reporting and transparency are valued by the capital market, which enhances long-term SEO performance.

RESEARCH GAP

From the various literature reviews, there is an obvious gap in the insufficient investigation of measuring the corporate ethics index. Most of the studies are based on the corporate governance score but do not take into account the sub-indices of corporate ethics.

Studies now in existence frequently combine data from different industries and geographical regions, which may cause them to miss regional and industry-specific subtleties that might affect the correlation between corporate ethics practices and financial success.

The panel regression model has been used in various papers, but it does not justify the validity of the factors or check the multicollinearity among the independent variables.

There is a lack of research on the significance of corporate ethics elements and stakeholder views in various circumstances.

OBJECTIVES OF THE STUDY

- Design and create a Corporate Ethical Disclosure Index (CEDI) and establish the relationship between CEDI and Firms' financial performance.
- The relationships and levels of relations between corporate ethical disclosures and the firms' performance are established.
- Analyse the degree of association between various sub-indexes of CEDI and firms' performance.

RESEARCH METHODOLOGY
IDENTIFY CORPORATE ETHICAL DISCLOSURE INDEX (CEDI)

Here, corporate ethical disclosures are treated as an independent variable and measured according to the following 3 sub-indices (Dhaliwal, D.S., et.al. 2012).

1) Corporate Ethics towards Employees (CEEmp)
2) Corporate Ethics towards Environment (CEEnv)
3) Corporate Ethics towards Society (CESoc)
4) Corporate Ethics towards Governance (CEGov)

CEDI = CEEmp + CEEnv + CESoc + CEGov

TABLE 1. CE DISCLOSURES SUB-INDICES

CATEGORY	SUB-INDICES	SCORE
Corporate Ethics towards Employees (CEEmp)	Whether rules and laws are clearly stated	1
	Whether there is any code of conduct	1
	Policy for whistleblowers	1
	Policy for conflicts and interest	1
	Policy for maintaining confidentiality	1
	Is insider trading forbidden or not	1
	Policy for anti-bribery is clearly stated or not	1
	Whether fair dealing	1
	Protection for the proper use of company assets	1
	Compliance with the law and rules	1
	Employment of relatives	1
	Sexual harassment in the workplace	1
	Total CEEmp Score	**12**
Corporate Ethics towards Environment (CEEnv)	Measure for low-carbon initiatives	1
	Carbon emission	1
	Developing lower-carbon products	1
	Initiatives towards green finance	1
	Mention Climate risk	1
	Biodiversity	1
	Use of solar energy	1
	Effluents and wastes	1
	Energy and water conservation	1
	Use of renewable energy sources	1
	Total CEEnv Score	**10**
Corporate Ethics Towards Society (CESoc)	CE information	**1**
	Amount of CSR	**1**
	Economic value generated	**1**
	Number of recruitment and recruitment drives	**1**

	Impact on the local community	**1**
	Occupational health and safety	**1**
	Indirect economic impact	**1**
	Social initiatives taken by the firm	**1**
	Consider ethics during the hiring process	**1**
	Gender equality	**1**
	Total CESoc Score	**10**
Corporate Ethics towards Governance (CEGov)	No of Board of Directors	1
	Board structure	1
	Board size	1
	Compensation Committee Statement	1
	Audit committee report	1
	Mention project risk and compliance	1
	Details of BOD	1
	Training of BOD	1
	Evaluation of non executive BOD	1
	Stakeholder survey	1
	Total CEGov Score	**10**
Total Corporate Ethics Disclosure (CED) score		**42**

SCORING PATTERN OF CORPORATE ETHICS DISCLOSURE INDEX

Annual reports of the selected companies are checked for each item of the disclosures of subcategories. If the particular item is disclosed in the annual report, then it is marked 1, and otherwise 0.

The score of each category is summarised and converted into percentage terms ***(Kim, J. W. 2010)***

IDENTIFY THE PERFORMANCE OF THE FIRM

Here performance of the firm is considered as the dependent variable and measured on 3 indices.

1) ROA (Return on Assets)
2) ROE (Return on Equity)
3) Tobin's Q Ratio

SAMPLE AND DATA COLLECTION

The top 100 firms are selected based on market capitalisation rate. The period for the study is taken for the last 10 years, i.e. from 2013-14 to 2022-23.

An average value of 10 years is taken for the above indices.

RESEARCH VARIABLE

The influence of corporate ethics disclosure on firms' financial performance was assessed by the study using the two-dimensional method for the observation of panel data (time-series dimension and cross-sectional dimension) ***(Dziuban, C. D., & Shirkey, E. C., 1974)***.

STATIONARY TEST OF THE PANEL DATA

When the properties of a time series data do not depend on time is called a stationary time series. For a panel data regression model, a model cannot be built on non-stationary data. So, stationary data is required to make the correct regression model ***(Hadri, K., 2000)***.

Stationary test of the time series data can be done by the ADF (Augmented Dickey-Fuller) test or the unit root test.

MULTICOLLINEARITY TEST OF THE INDEPENDENT VARIABLES

For panel data analysis independent variables are not to be correlated. So Multicollinearity test is done through VIF i.e. variance influence factor.

VIF = 1/ (1 – R2)

2ND STAGE, FIXED EFFECT METHOD

is used. In the linear regression model, this method is used to estimate the unknown parameters. The OLS method is inappropriate for panel data analysis ***(Daoud, J. I., 2017)***. In the study, we employed the fixed-effects method ***(Brüderl, J., & Ludwig, V., 2015)***.

The generalized regression model for the study is as follows:

ROA value = $\alpha 0 + \beta 1$ CEEmp + $\beta 2$ CEEnv + $\beta 3$ CESoc + $\beta 4$ CEGov + ε …… (1)
ROE value = $\alpha 0 + \phi 1$ CEEmp + ϕ 2 EEnv + ϕ 3 CESoc + ϕ 4 CEGov + ε …… (2)
Tobin's Q = $\alpha 0 + \lambda 1$ CEEmp + $\lambda 2$ CEEnv + $\lambda 3$ CEEsoc + $\lambda 4$ CEEGov + ε …… (3)

$\infty 0$ = CONSTANT TERM

HYPOTHESIS

H01	**$H01_A$**	ROA is not significantly impacted by the companies' disclosures to employees about their corporate ethics.
	H01B	ROA is not significantly impacted by the companies' disclosures to the environment about their corporate ethics.
	$H01_C$	ROA is not significantly impacted by the companies' disclosures to society about their corporate ethics.
	$H01_D$	ROA is not significantly impacted by the companies' disclosures to the governance about their corporate ethics.
H02	**$H02_A$**	ROE is not significantly impacted by the companies' disclosures to employees about their corporate ethics.
	$H02_B$	ROE is not significantly impacted by the companies' disclosures to the environment about their corporate ethics.
	$H02_C$	ROE is not significantly impacted by the companies' disclosures to society about their corporate ethics.
	$H02_D$	ROE is not significantly impacted by the companies' disclosures to the governance about their corporate ethics.
H03	**$H03_A$**	Tobin's Q ratio is not significantly impacted by the companies' disclosures to employees about their corporate ethics.
	$H03_B$	Tobin's Q ratio is not significantly impacted by the companies' disclosures to the environment about their corporate ethics.
	$H03_C$	Tobin's Q ratio is not significantly impacted by the companies' disclosures to society about their corporate ethics.
	$H03_D$	Tobin's Q ratio is not significantly impacted by the companies' disclosures to the governance about their corporate ethics.

DATA ANALYSIS

VALIDITY TEST – KMO TEST

TABLE 3. "KAISER MEYER OLKIN" AND "BRATLETT'S" TEST

"KMO AND BARTLETT'S TEST"		
"Kaiser-Meyer-Olkin Measure of Sampling Adequacy."		**0.700**
"Bartlett's Test of Sphericity"	Chi-Square(approx.)	216.075
	degree of freedom	6
	Significance	0.000

KMO score is 0.7, which ranged from 0.7 to 0.799. So we can say the factors chosen are adequate, and analysis can be done on the above factors or sub-indices.

STATIONARY TEST

Stationary tests of the time series data can be done by the ADF (Augmented Dickey-Fuller) test ***(Mushtaq, R., 2011)***.

DEPENDENT VARIABLES	T STAT	CRITICAL VALUE	
		1%	5%
ROA	-9.7784	-3.52	-2.90
ROE	-2.966		
Tobin's Q ratio	-4.81		

T value < critical values of 5% for all the dependent variables at the level, so there is no unit root. ADF test result has shown that at the level, the variables are stationary.

CORRELATION ANALYSIS

TABLE 4. PAIRWISE CORRELATION

	ROA	ROE	TOBINS Q RATIO	CEI TOWARDS ENVIRONMENT	CEI TOWARDS GOVERNANCE	CEI TOWARDS EMPLOYEE	CEI TOWARDS SOCIETY
ROA	1.000						
ROE	**0.779***	1.000					
Tobins Q ratio	**0.702***	**0.543***	1.000				
CEI towards environment	**0.828***	**0.683***	**0.703***	1.000			
CEI towards governance	**0.788***	**0.595***	**0.873***	**0.774***	1.000		
CEI towards employee	0.083	0.157	0.019	0.106	0.007	1.000	
CEI towards society	**0.774***	**0.601***	**0.602***	**0.923***	**0.724***	0.113	1.000

**** (sig at 0.01 level (2-tailed)).***

The results indicate that there is a possible association between independent variables, i.e. sub-indices of corporate ethics disclosures, and dependent variables, i.e. firms' performance. The relations are significant at either the 0.01 level or the 0.05 level. However, Corporate ethics disclosures towards employees have an insignificant relation with firms' financial performance.

MULTICOLLINEARITY TEST

Correlations between the corporate ethics disclosures and dependent variables are significant. Correlations between the independent variables are judged by the Multicollinearity test.

TABLE 5. MULTICOLLINEARITY TEST WITH VIF VALUE

INDEPENDENT VARIABLE	COLLINEARITY STATISTICS		
	TOLERANCE	VIF	
CEEnv Score	0.125	8.005	VIF factor less than 10, so assume that there is no multicollinearity
CEGov Score	0.394	2.525	
CEEmp Score	0.973	1.028	
CESoc Score	0.148	6.754	

The multicollinearity test found no variance inflation factor greater than 10, suggesting that there is no indication of multicollinearity in the independent variable. Corporate Ethics, Environment disclosures, social disclosures, Employee disclosures, and Governance disclosures are independent.

REGRESSION ANALYSIS
FIXED EFFECT METHOD

Hence, the data is panel data, so we use the fixed effect method for regression analysis.

Fixed effect method (FEM) test is used to investigate the effect of voluntary disclosures on the firm's value. The following table displays the FEM test result.

TABLE 6. REGRESSION RESULTS OF PANEL DATA (FIXED EFFECT METHOD)

FE METHOD	ROA (1)		ROE (2)		Tobin's Q ratio (3)	
	CO-EFFICIENT	P VALUE	CO-EFFICIENT	P VALUE	CO-EFFICIENT	P VALUE
CEEnv score	2.973	**0.004***	3.119	**0.003***	2.323	**0.011***
CEGov score	3.932	**0.000***	1.456	0.15	9.732	**0.000***
CEEmp score	0.374	0.710	1.243	0.218	0.241	0.810
CESoc score	0.282	0.779	-1.103	0.304	-2.663	**0.010***
R SUARE	0.740		0.495		0.786	
ADJ R SUARE	0.726		0.468		0.774	

significant at 5% (p < 0.05)

RELATION BETWEEN CE DISCLOSURES AND ROA

Results are displayed in column [1], using the ROA as a proxy for measuring the firms' performance. According to the study, corporate ethics disclosures related to governance and the environment significantly affect ROA. However, ROA is positively correlated with Corporate Ethics toward employment disclosures (0.375), and Corporate Ethics toward society (a correlation of 0.282), but the relation is insignificant.

RELATION BETWEEN CORPORATE ETHICS DISCLOSURES AND ROE

Results are displayed in column [2], and ROE is used as a variable for measuring the firm's performance. The study reveals that CE disclosure relating to the environment has only a significant positive relation with the firm's financial performance. However, CE disclosures regarding society have a negative, insignificant relation with firms' financial performance.

RELATION BETWEEN CE DISCLOSURES AND TOBIN'S Q RATIO

Results are displayed in column [3], here, as a proxy, Tobin's Q Ratio is used for measuring the firms' performance. According to the study, CE social disclosures have a significant negative correlation with Tobin's Q ratio. However, Tobin's Q Ratio has a significant positive correlation with environmental disclosures and governance disclosures.

HYPOTHESIS TESTING RESULT

H01	**$H01_A$**	Accept	P value >0.05	The firms' Corporate Ethics disclosures towards employees have no significant effect on ROA.
	$H01_B$	Reject	P value <0.05	The firms' Corporate Ethics disclosures regarding the environment have a significant effect on ROA.
	$H01_C$	Accept	P value >0.05	The firms' disclosures of corporate ethics towards society have no significant effect on ROA.
	$H01_D$	Reject	P value <0.05	The firms' Corporate Ethics disclosures regarding governance have a significant effect on ROA.
H02	**$H02_A$**	Accept	P value >0.05	The firms' Corporate Ethics disclosures towards employees have no significant effect on ROE.
	$H02_B$	Reject	P value <0.05	The firms' Corporate Ethics disclosures regarding the environment have a significant effect on ROE.
	$H02_C$	Accept	P value >0.05	The firms' disclosures of corporate ethics towards society have no significant effect on ROE.
	$H02_D$	Accept	P value >0.05	The firms' disclosures of corporate ethics towards governance have no significant effect on ROE.
H03	**$H03_A$**	Accept	P value >0.05	The firms' Corporate Ethics disclosures towards employees have no significant effect on the Tobin's Q Ratio.
	$H03_B$	Reject	P value <0.05	The firms' Corporate Ethics disclosures regarding the environment have a significant effect on Tobin's Q Ratio.
	$H03_C$	Reject	P value <0.05	The firms' Corporate Ethics disclosures regarding society have a significant effect on Tobin's Q Ratio.
	$H03_D$	Reject	P value <0.05	The firms' Corporate Ethics disclosures regarding governance have a significant effect on Tobin's Q Ratio.

FINDINGS

1) Create the Corporate Ethics disclosures and sub-indices of CE. The results of the study have unequivocally demonstrated a link between CE disclosure and business performance, suggesting that different types of CE disclosure and proxies for assessing firm performance may interact in complicated ways.
2) Corporate Ethics towards Society disclosures have a negative impact on firms' financial performance, whereas Employee, Environmental, and governance disclosures have a positive impact on firms' financial performance.
3) ROA and Tobin's Q ratio are statistically significantly impacted by the environmental, governance, and society disclosures.

CONCLUSIONS

Corporate Ethics disclosures are measured based on various sub-indices of employees, environmental, social, and corporate governance disclosures. Each sub-index is converted into scores using dummy variables 1 and 0.

ROA, ROE, and Tobin's Q ratio are treated as dependent variables. Firms' financial performance is measured based on the above factors. Independent variables are decided based on various literature reviews. CE disclosures are treated as independent disclosures.

The KMO test shows that the factors are adequate, and regression analysis can be done on this panel data.

The study's goal is to evaluate the impact of CE disclosure on the company's financial performance between 2013–14 and 2022–23 using the fixed effect approach.

The correlation test shows that corporate ethics disclosure has a direct relationship with ROA, ROE, and Tobin's Q ratio, and all the relations are statistically significant except corporate ethics towards employees. The correlation between CEEmp and firms' financial performance is not statistically significant.

The impact of environmental disclosures on ROA, ROE, and Tobin's Q Ratio is positive and significant because the p-value for these factors is less than 0.05 and the coefficient is positive.

But at the same time, disclosure relating to social information has a negative and statistically significant relation with Tobin's Q Ratio only because the p-value is less than 0.05 and the correlation is negative.

Social disclosures have positive, insignificant relations with ROA and negative, insignificant relations with ROE. Because in all such cases, the p-value > 0.05.

Governance disclosures (GD) also have a favourable impact on ROA, ROE, and Tobin's Q ratio. The relationship between ROE and governance transparency is not statistically significant, as the p-value is greater than 0.05. The association between CE governance disclosures and ROA, Tobin's Q ratio is statistically significant because the p-value<0.05.

So we can conclude that under firm financial performance, the ROA parameter and Tobin's Q ratio are significantly affected by Corporate Ethics disclosures. ROE is not significantly affected by Corporate Ethics disclosures.

RECOMMENDATIONS

Emphasise transparent reporting on environmental practices and governance structures, which significantly enhance financial performance (ROA, Tobin's Q) and long-term value. Given the negative link with Tobin's Q, restructure and communicate social initiatives to align with shareholder interests and demonstrate measurable outcomes.

Despite limited financial impact, improve disclosures on employee welfare through quantifiable indicators like engagement scores and ethical workplace practices.

Adopt global standards (e.g., GRI, ISO 26000) to ensure consistency, comparability, and credibility in corporate ethics disclosures.
Engage with policymakers to advocate for stronger disclosure mandates, reinforcing ethics as a driver of market trust and firm value.

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PAPER – 02

ACCESS TO FINANCE AND WOMEN'S ENTREPRENEURSHIP DEVELOPMENT IN NEPAL

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INTRODUCTION

Entrepreneurship is a catalyst for economic growth, innovation, and transformation, as individuals bring forward novel ideas, products, or processes that reshape production patterns and enhance value (Swedberg, 2016). Historically, entrepreneurs were primarily seen as individuals who founded, launched, and managed businesses, typically small enterprises or startups, offering goods, services, or processes (Cotei et al., 2017). While entrepreneurship has often been associated with men, there has been growing recognition of women's contributions to this field, especially over recent decades, as women entrepreneurs play a pivotal role in driving economic progress, creating employment, and fostering growth, particularly in developing nations (Morched, 2019). This shift not only underscores the economic benefits of empowering women but also highlights a broader, global re-evaluation of gender equality in business.

In Nepal, where women comprise a slightly larger share of the population than men (Eldridge Business, 2020), the importance of promoting women's entrepreneurship has never been more evident. However, a significant obstacle for aspiring women entrepreneurs is access to finance. Defined as the ability to obtain a range of financial services, including credit, deposit, payment, insurance, and risk management services, and access to finance is critical for entrepreneurial success (Harelimana, 2016). When financial access is improved, it supports individual businesses and strengthens the economy by driving innovation, enhancing productivity, and opening growth opportunities (York & Venkataraman, 2010). Unfortunately, many female entrepreneurs in Nepal face substantial barriers to accessing financial resources, hindering their ability to start, sustain, or scale their ventures. These obstacles are further compounded by sociocultural norms, gender biases, and financial policies that inadequately address the unique needs of women entrepreneurs (World Bank, 2021; ADB, 2019).

The importance of promoting women's entrepreneurship goes beyond individual businesses, as it holds the potential to elevate communities and contribute to national development. Empowering women entrepreneurs can enhance socioeconomic conditions by improving women's financial autonomy, supporting families, and driving community well-being (York & Venkataraman, 2010). The resilience of women entrepreneurs is seen in neighboring countries such as Sri Lanka, where shifts in gender roles due to historical events like conflict have motivated women to assume entrepreneurial roles and support their families financially (Iakovleva et al., 2013; Karki, 2020). In Nepal, where economic growth remains a priority, encouraging women's entrepreneurship could help address challenges like unemployment, poverty, and gender inequality (Mosakowski, 1998; Ricketts, 2009). Despite the potential of women's entrepreneurship, the lack of financial access remains a formidable challenge, preventing many women from establishing or expanding businesses on a competitive level. Globally, women's entrepreneurship is on the rise, with millions of women establishing and managing businesses across various economies (Chowdhury et al., 2018). Many women pursue entrepreneurship not solely for financial gain but to advance their careers, assert their rights, and challenge societal norms (Kumar, 2003, Karki et al., 2021). However, in Nepal, women entrepreneurs face persistent hurdles, especially in securing financing, with challenges spanning from startup funding to expanding operations due to limited access to finance, support services, and societal acceptance (Ilie et al., 2021). These barriers are exacerbated when women lack collateral or encounter bias from financial institutions (Strawser et al., 2021). This study, therefore, seeks to deepen the understanding of the financial challenges faced by Nepalese women entrepreneurs and to offer insights into how policies and practices could better support their growth.

This study seeks to address the following questions: What factors influence Nepalese women entrepreneurs' access to finance? How do entrepreneurial characteristics and firm characteristics affect their financial

accessibility? To what extent do existing policies and procedures shape access to financial resources for women-led enterprises? Accordingly, the study's primary objective is to investigate the elements influencing women's perceptions of financial accessibility in Nepal. Specifically, the study aims to identify factors that impact financial access, analyze the influence of individual characteristics and firm characteristics, and assess the role of financial policies and procedures in facilitating finance for women entrepreneurs.

The remainder of this research is structured as follows: Section 2 presents a literature review on the topic. Section 3 outlines the research methodology, including design and data collection. Section 4 details the results and discussion, and Section 5 concludes with recommendations based on the findings.

LITERATURE REVIEW

Women entrepreneurs face unique challenges, which differentiate their entrepreneurial journeys from their male counterparts. Several studies have highlighted specific characteristics, motivations, barriers, and the social environment surrounding women entrepreneurs, shedding light on the interplay between gender and entrepreneurship.

CHARACTERISTICS OF WOMEN ENTREPRENEURS

The characteristics of women entrepreneurs have evolved over time, shaped by cultural, economic, and social factors. Studies by Strawser et al. (2021) illustrates that many female entrepreneurs, particularly in developing countries, often enter the business at a young age, with the majority launching ventures during high school or early adulthood. Their average age hovers around 40 years, with a significant percentage (90%) having educational attainment below the Secondary School Certificate (Strawser et al., 2021). Despite these low levels of formal education, women entrepreneurs have accumulated human capital through experience and community-based informal learning channels, indicating that their entrepreneurial capabilities grow with age, experience, and exposure.

SOCIAL AND INSTITUTIONAL BARRIERS TO ENTREPRENEURSHIP

The challenges women entrepreneurs encounter often begin within their immediate surroundings. Ogundana et al. (2021) note that women entrepreneurs often learn business skills through family members and community mentors, highlighting the role of familial support in overcoming the lack of formal business training. Nonetheless, familial and societal norms can also act as significant barriers. Hisrich and Öztürk (1999) found that 26% of women entrepreneurs identified social impediments as major barriers, which prevent them from establishing and growing their businesses. These impediments stem from cultural beliefs that discourage female-led businesses or from biases that undermine women's capability to succeed in entrepreneurial roles.

LACK OF TRAINING AND TECHNICAL KNOWLEDGE

Starting a business necessitates technical and managerial knowledge, often obtained through formal training. However, access to business-related training remains limited for women entrepreneurs. Chamani et al. (2017) reported that nearly 35% of women entrepreneurs lack access to training opportunities, which severely impedes their ability to establish businesses successfully. Similarly, 21% indicate that a lack of technical knowledge has hindered their entrepreneurial growth (Mathew & Kavitha, 2010). The limited availability of training resources for women entrepreneurs stifles skill development, reducing the likelihood of venture sustainability.

ACCESS TO FINANCE AS A CRITICAL CONSTRAINT

Access to finance is widely recognized as a cornerstone for entrepreneurial success. According to Beck & La Torre (2007), financial access significantly enhances business performance by enabling firms to meet working capital needs, stimulate innovation, and effectively exploit growth opportunities. However, women entrepreneurs encounter significant obstacles in accessing financial resources. Erdogan (2019) and Bhandari et al. (2021) highlighted that access to commercial loans and strong banking relationships are essential for business growth, yet these resources remain less accessible to women due to gender-based perceptions held by financial institutions. Empirical studies emphasize the influence of gender on financial access. Furthermore, financial constraints lead to inefficiencies in women-led businesses in West Africa, drawing parallels to similar challenges faced by women entrepreneurs globally, including in Nepal (Ogundana et al., 2021; Shrestha et al., 2022). These constraints not only stifle growth but also prevent firms from competing in international markets.

SYSTEMIC FINANCIAL AND STRUCTURAL CHALLENGES

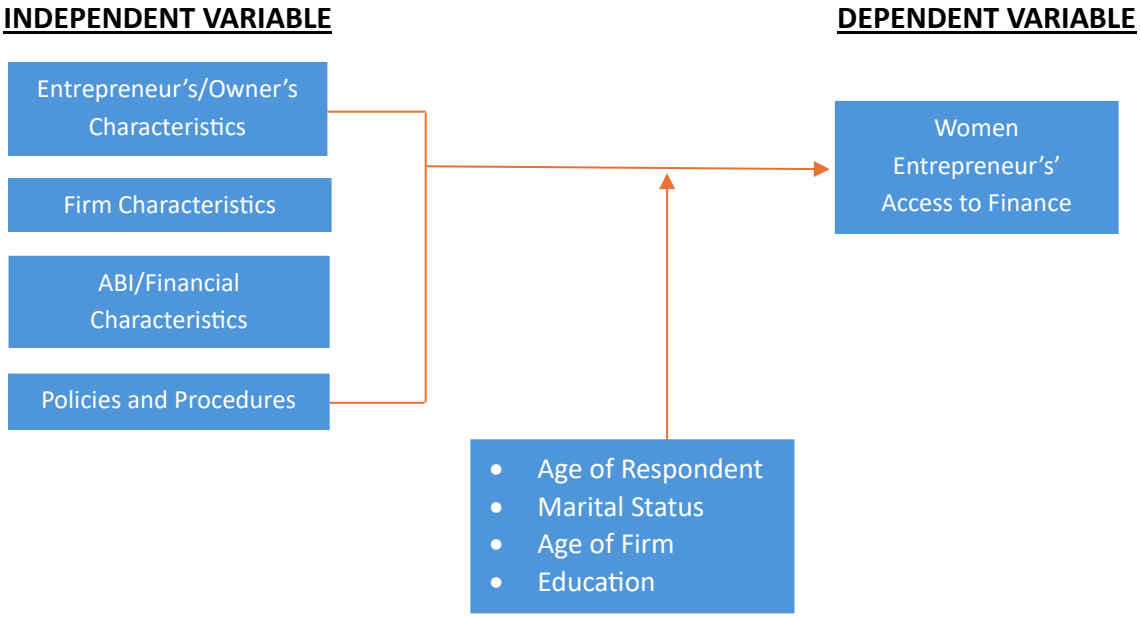
The challenges women face in accessing finance extend beyond individual loan applications and are rooted in systemic issues. Hadjimanolis (2000) highlighted that small businesses generally lack resources and bargaining power, which affects their ability to secure financial capital. Firm characteristics, such as size, age, and ownership type, significantly impact financing decisions (Fairlie & Robb, 2009; Bhattarai et al., 2024). Additionally, Islam et al. (2011) found that firm-specific attributes, like origin and size, have limited influence on SME performance in Bangladesh, indicating that structural constraints, rather than business characteristics, determine financial accessibility in developing countries. Discrimination in credit access remains a pertinent issue. Female entrepreneurs may refrain from applying for loans due to perceived discrimination or anticipate rejection by requesting smaller amounts (Galli & Rossi, 2016). This reluctance not only holds financial disparities but also reinforces structural differences between male- and female-owned enterprises.

SOCIOECONOMIC AND CULTURAL CONSTRAINTS

Beyond financial and institutional challenges, cultural expectations play a significant role in shaping women's entrepreneurial paths. Women are subject to additional constraints due to collateral requirements, lack of guarantors, and the need for spousal or familial approval, further limiting their financial independence. Moreover, women's time constraints due to household responsibilities limit their availability to manage business operations effectively (Armbruster et al., 2019). This intersection of economic, social, and familial responsibilities creates a uniquely challenging environment for women entrepreneurs.

While extensive literature documents the challenges and characteristics of women entrepreneurs, limited research has focused on the contextual financial barriers and socio-cultural constraints that uniquely affect women in Nepal. Most studies focus broadly on developing countries, providing geeral insights but failing to address Nepal's specific economic and social environment. This study seeks to address these research gaps by examining access to finance for women entrepreneurs in Nepal through a comprehensive lens that incorporates key entrepreneurial, firm, financial, and policy variables. Specifically, it assesses the impact of women entrepreneurs' individual characteristics, firm attributes, and financial factors, alongside relevant policies and procedures, on their access to finance. The conceptual framework of the study is illustrated in Figure 1.

FIGURE1. CONCEPTUAL FRAMEWORK



RESEARCH METHODOLOGY

This study adopts a descriptive research design. Data for analysis were collected from respondents via a self-administered questionnaire. Various statistical tests, including correlation, regression, mean, standard deviation, and ANOVA, were conducted using the Statistical Package for Social Science (SPSS) and Microsoft Excel. These commonly accessible software tools facilitated efficient analysis and interpretation of quantitative data, providing in-depth information for formulating recommendations.

NATURE AND SOURCES OF DATA

This study utilized a primary survey conducted among individual entrepreneurs in start-up firms within the Kathmandu Valley. The study sample included female entrepreneurs with varying levels of experience, from novices to highly experienced individuals. A non-random sampling method, specifically quota and convenience sampling, was used. Questionnaires were distributed to 600 respondents, yielding 534 usable responses for analysis.

DATA COLLECTION PROCEDURE

This research involved a structured procedure for questionnaire distribution and data collection. The questionnaire was carefully crafted based on consultations with the research department and a thorough literature review. After approval, the questionnaire was distributed to potential respondents, and data were collected through online forms. The study utilized a quantitative approach for data analysis.

MODEL OF THE STUDY

A multiple linear regression model was used to assess the impact of financial accessibility factors on women entrepreneurs' access to finance:

$$AF = \beta 0 + \beta 1EC + \beta 2FC + \beta 3FinC + \beta 4PP + E \quad \text{---------- (1)}$$

Where, AF = Access to Finance; β0 = Intercept Parameter; β1 = Slope Parameters; EC= Entrepreneur's characteristics; FC = Firm characteristics; FinC = Financial characteristics; PP = Policies and Procedures; ε = Standard Error

INSTRUMENTATION OF DATA

The study is based on quantitative research, using primary data collected through a questionnaire. The first section of the questionnaire addresses respondent demographics (gender, age, academic qualifications, work experience, and firm age), which is used for descriptive analysis. The second section includes 25 statements

measuring the independent variable, i.e., the use of bootstrap financing tools, rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). These items assess the extent of reliance on bootstrap financing.

RELIABILITY AND VALIDITY OF DATA

Reliability testing assesses whether measurements are consistent and free from error, while validity examines whether a test accurately measures the intended variable. Cronbach's alpha was used to evaluate the internal consistency and reliability of the primary data across the constructs of entrepreneur's characteristics, firm characteristics, financial characteristics, and policies and procedures. A Cronbach's alpha coefficient of 0.7 or higher indicates strong reliability, though a minimum of 0.6 is also acceptable in academic research. Table 3.1 displays Cronbach's alpha values, which show reliable and valid measurements:

TABLE 1: COEFFICIENT OF CRONBACH'S ALPHA

VARIABLES	CRONBACH'S ALPHA
Entrepreneur's Characteristics	0.762
Firm's Characteristics	0.807
Financial Characteristics	0.744
Policies and Procedures	0.600
Access to Finance	0.649

Each alpha value meets or exceeds the 0.6 threshold, indicating that the instrument is both reliable and valid for this study.

RESULTS AND DISCUSSION

This section presents a systematic analysis of the primary data collected for this study, applying the statistical and regression models discussed earlier. The analytical approach aims to examine the relationships between entrepreneurial characteristics, firm attributes, financial factors, and policy frameworks, and their collective impact on women's access to finance.

ANALYSIS OF DEMOGRAPHIC VARIABLES

The demographic profile of respondents provides insights into the key personal characteristics that may impact women entrepreneurs' access to finance. These characteristics include age group, educational level, marital status, work experience, firm age, number of employees, and primary funding source, summarized in Table 2.

TABLE 2. DEMOGRAPHIC VARIABLES

VARIABLES	FREQUENCY	PERCENT			
AGE GROUP					PERCENT
15-25	160	30	Banks and financial institutions	82	15.4
26-35	156	29.2	Personal Savings	204	38.2
36-45	120	22.5	Family or friends	208	39
46 and above	98	18.4	Short term bank overdraft	40	7.5
Education					
Below SEE	50	9.4			
SEE	174	32.6			
+2 or intermediary	192	36			
Bachelor	96	18			
Master and above	22	4.1			
Experience					
Less than 5 years	284	53.2			
6 – 10 years	178	33.3			
11- 15 years	68	12.7			
15 years and above	4	0.7			
Marital Status	156	29.2			
Married	378	70.8			
Unmarried					
No. of workers in the firms					
less than 5	44	8.2			
6 to 15	124	23.2			
16-25	224	41.9			
26-50	114	21.3			
Above 50	28	5.2			
Age of the firm					
0-2 years	78	14.6			
3-5 years	172	32.2			
6-10 years	216	40.4			
Above 10 years	68	12.7			
Major source of startup					
Banks and financial institutions Personal Savings Family or friends Short term bank overdraft					

The age distribution of respondents reveals a relatively balanced representation across four age groups. Specifically, 30.0% are in the 15-25 age group, 29.2% are in the 26-35 group, 22.5% in the 36-45 range, and 18.4% are over 46. In terms of actual frequency, this equates to 160 respondents aged 15-25, 156 aged 26-35, 120 aged 36-45, and 98 respondents aged 46 or older. As reflected in the research by Ghimire and Karki (2022), this distribution also indicates a concentration of younger and mid-career women entrepreneurs, highlighting potential generational differences in entrepreneurial motivation, risk tolerance, and access to financial resources. Regarding educational qualifications, Table 2 shows that respondents' education levels span five categories: 9.4% have an education below the Secondary Education Examination (SEE) level, 32.6% have completed SEE, 36% hold an intermediate level qualification, 18% have a bachelor's degree, and 4.1% possess a master's or higher qualification. The data reflects that a majority of women entrepreneurs (68%) hold

qualifications up to or below the intermediate level. This may imply that many women entrepreneurs in Nepal enter the business landscape with relatively modest academic backgrounds, potentially influencing their access to finance, business knowledge, and ability to navigate complex financial systems. The work experience of respondents varies widely, with 53.2% (284 respondents) having less than 5 years of experience, 33.3% (178 respondents) having 6 to 10 years of experience, and 12.7% with 11 to 15 years. This profile shows a high proportion of entrepreneurs with limited experience, which might impact their understanding of financial options and increase their reliance on personal savings or informal funding sources.

Marital status, as indicated in Table 2, reveals that 29.2% of respondents are married, while a significant 70.8% are unmarried (378 respondents). The predominance of unmarried women suggests that many may lack spousal support or alternative family resources, which can often play a role in initial financing and in managing entrepreneurial challenges. This demographic characteristic may further underscore the need for accessible financial products tailored to single women entrepreneurs. In terms of firm size by employee count, Table 2 shows that 44 respondents employ fewer than five workers, 124 employ six to fifteen, 224 have sixteen to twenty-five, 114 employ twenty-six to fifty, and only 28 firms have more than fifty employees. Firms with 26-50 employees make up the largest group (41.9%), while only 5.2% of firms employ more than 50. This distribution suggests that most women-owned businesses are small to medium-sized, reflecting a significant segment that may face unique challenges in scaling due to limited access to capital. The age of the firms in the sample also provides insight into business maturity. Firms younger than two years constitute 14.6% of the sample, firms aged six to ten years represent the largest group (40.4%), while those over ten years comprise only 12.7%. These findings suggest a substantial proportion of emerging or mid-stage businesses among women entrepreneurs, may benefit from targeted financial support to grow and achieve sustainability. Lastly, the primary funding sources reveal preferences and constraints faced by these entrepreneurs (Maharjan et al., 2022). The majority (38.2%) financed their ventures through personal savings, suggesting limited access to external funding sources. Meanwhile, short-term bank overdrafts represent only 7.5% of funding, indicating that traditional financial products may be underutilized or inaccessible to many women entrepreneurs. Other sources, such as microfinance and loans from family or friends, highlight a need for more accessible, flexible funding options tailored to support women entrepreneurs in the early stages of their business ventures.

DESCRIPTIVE ANALYSIS

Table 3 provides a detailed analysis of the characteristics and perceptions of women entrepreneurs regarding access to finance. Respondents rated statements on a scale from 1 to 5 (1 = Strongly Disagree, 5 = Strongly Agree), reflecting their perspectives on various factors impacting financial accessibility (Devkota et al. 2023).

TABLE 3: DESCRIPTIVE ANALYSIS

PARTICULARS	MIN.	MAX.	MEAN	STD. DEV.
ENTREPRENEURS CHARACTERISTICS				
Educational background and experience influence access to finance.	1	4	2.49	0.979
Women have the ability and desire to take risks.	1	5	2.74	0.988
Management skills affect access to finance.	1	5	3.01	1.144
Building a relationship with the lender influences funding availability.	1	4	2.38	0.797
FIRM CHARACTERISTICS				
Years of operation have a significant impact on access to finance.	1	4	1.83	0.823
The size of the firms affects access to finance.	1	5	2.15	0.915
Collateral impacts access to finance.	1	5	2.34	0.872
Firms run by women have less easy access to finance as compared to those run by males.	1	5	2.99	0.954
FINANCIAL CHARACTERISTICS				
Access to finance is determined by the ability to draw a business plan.	1	5	2.58	1.162
Higher the interest rate lesser is the accessibility to finance.	1	5	2.19	0.928
Lack of collateral of assets is one of the problems with access to finance.	1	5	2.82	1.219
Lengthy banking processes have hindered access to finance.	1	4	2.37	0.938
Short duration for repayment of loan makes higher accessibility.	1	5	2.52	1.001
POLICIES AND PROCEDURES				
I consider policies and procedures to be in favor of women entrepreneurship in Nepal.	1	5	3.28	1.201
The rules and regulations to access finance are liberal for women entrepreneurs compared to male entrepreneurs.	1	5	2.98	0.969
The subsidies and incentives for accessing finance for women are well provided in our country.	1	5	2.95	1.002
ACCESS TO FINANCE				
Informal sources like borrowing from friends and relatives are more accessible as compared to formal sources like banks.	1	5	3.49	1.098
Women entrepreneurs have equal access to finance as compared to male entrepreneurs.	1	5	3.26	1.140
Women entrepreneurs have easy access to finance.	1	5	2.35	.778
Access to finance has been a major challenge to the growth of the firm run by women.	1	5	2.52	1.001

ENTREPRENEUR CHARACTERISTICS

Respondents generally agreed that "Management skills affect access to finance," suggesting a belief in the value of managerial competencies in improving financial accessibility. Conversely, they disagreed with the statement "Building relationships with lenders influences funding availability," indicating that relational capital may not be perceived as a critical factor in accessing finance. The third statement had the highest mean score of 3.01, and the highest standard deviation was 1.14, reflecting a slight variance in responses but an overall consensus that entrepreneurial skills have a somewhat uniform effect on financial accessibility. The close range of mean scores suggests that each entrepreneurial attribute exerts a relatively equal influence on access to finance.

FIRM CHARACTERISTICS

In terms of firm-specific factors, respondents agreed that "Firms run by women have less access to finance than those run by men," pointing to perceived gender disparities in financial accessibility. However, they disagreed with "Years of operation has a significant impact on access to finance," indicating that longevity does not necessarily translate to easier financial access for women entrepreneurs. The fourth statement showed the highest mean (2.99) and standard deviation (0.954), underscoring a consensus on the effect of firm characteristics on access to finance and reinforcing the challenges faced by women-led enterprises.

FINANCIAL CHARACTERISTICS

Regarding it, respondents agreed that "Lack of collateral assets is a major obstacle to accessing finance," highlighting collateral requirements as a significant barrier. Conversely, they disagreed with "Higher interest rates reduce accessibility to finance (Karki, 2017)," suggesting that interest rates may not be the primary concern compared to other barriers, like collateral. The third statement held the highest mean (2.82) and standard deviation (1.21), indicating a shared perspective on the importance of collateral as a constraint on financial access.

POLICIES AND PROCEDURES

Respondents expressed agreement with "Policies and procedures favour women entrepreneurship in Nepal," suggesting a recognition of supportive frameworks. However, they disagreed that "Subsidies and incentives for accessing finance for women are well-provided," indicating potential gaps in policy implementation. The second statement recorded the highest mean (3.28) and standard deviation (1.20), pointing to policy perceptions as a mixed factor, with support acknowledged but still viewed as insufficiently effective in practice.

ACCESS TO FINANCE

Regarding women entrepreneurs' accrual financial access, most respondents agreed that "Informal sources, like borrowing from friends and family, are more accessible than formal sources like banks." However, they disagreed with the statement "Women entrepreneurs have easy access to finance," emphasizing challenges with formal financial channels. The second statement achieved the highest mean (3.49) and standard deviation (1.14), suggesting a strong perception that formal financing remains difficult for women entrepreneurs to access, driving reliance on informal networks.

CORRELATION ANALYSIS

The correlation analysis summarized in Table 4 explores relationships among factors influencing financial accessibility for women entrepreneurs.

TABLE 4: CORRELATION ANALYSIS

	EC	FC	FinC	PP	AF
EC	1				
FC	0.116	1			
	0.059				
FinC	0.082	0.342**	1		
	0.181	0.000			
PP	0.167**	0.274**	0.431**	1	
	0.006	0.000	0.000		
AF	0.117	0.304**	0.424**	0.500**	1
	0.057	0.000	0.000	0.000	

. Correlation is significant at the 0.01 level (2-tailed).

This analysis reveals that all independent variables—entrepreneur characteristics, firm characteristics, financial health, and policy environment—exhibit positive correlations with access to financial sources (AF). Notably, three of these variables demonstrate a statistically significant positive relationship with access to finance at the 0.01 significance level. Entrepreneur characteristics such as education, self-confidence, management skills, and relationship-building abilities significantly enhance financial accessibility, suggesting that women entrepreneurs with a robust professional background are better positioned to secure resources. Firm characteristics like years in operation, firm size, and available collateral also show a positive impact, indicating that longer-established firms or those with substantial assets face fewer financial barriers, as firm stability and resource strength appeal to lenders. Furthermore, financial characteristics such as profitability, liquidity, and stability are positively correlated with financial access, implying that sound financial health bolsters credibility and reliability in the eyes of financial providers (Karki, 2018). Additionally, a supportive policy framework (PP) positively impacts accessibility, underscoring that favorable policies, reduced procedural barriers, and dedicated financial initiatives significantly influence women entrepreneurs' access to funding. The analysis emphasizes the multidimensional nature of financial accessibility, where support across personal skill-building, firm development, and policy initiatives is vital for creating a more inclusive financial environment for women entrepreneurs.

ANALYSIS OF VARIANCE (ANOVA)

The ANOVA analysis presented in Table 5 examines the influence of key demographic and operational characteristics of women entrepreneurs—namely age, education level, work experience, and initial funding sources—on access to financial resources.

TABLE 5. ANOVA ANALYSIS OF GROUP VARIABLES ON FINANCIAL SOURCES ACCESSIBILITY

GROUP VARIABLES	MEAN	STD. DEVIATION	F	SIG.
AGE GROUP				
15-25	2.9625	0.58475	1.346	0.26
26-35	2.9135	0.53578		
36-45	2.9237	0.51956		
46 and above	2.7653	0.57827		
EDUCATION LEVEL				
Below SEE	2.89	0.62115	1.17	0.324
SEE	2.8198	0.5579		
+2 or intermediary	2.9922	0.55066		
Bachelor	2.8698	0.55541		
Master and above	2.9545	0.40028		
WORKING EXPERIENCE				
Less than 5 year	2.9419	0.58016	2.21	0.087
6 - 10 years	2.9261	0.51856		
11- 15 Years	2.6765	0.52775		
15 years and above	3	0		
MAJOR SOURCE OF STARTUPS				
Banks and financial institutions	2.8171	0.55347	0.411	0.745
Personal Savings	2.9118	0.52019		
Family or friends	2.9199	0.58705		
Short-term bank overdraft	2.95	0.60481		

The results show that while some demographic groups exhibit higher means, there is no statistically significant impact on financial accessibility across these variables, as indicated by significance values greater than 0.05 for each category.

REGRESSION ANALYSIS

The regression analysis of factors affecting access to financial sources provides a comprehensive view of how four key independent variables—Entrepreneur Characteristics, Firm Characteristics, Financial Characteristics, and Policies and Procedures—relate to financial accessibility for women entrepreneurs. As presented in Table 6, the regression results reveal significant insights into these relationships, highlighting the importance of specific factors over others.

TABLE 6. ESTIMATED REGRESSION RESULTS OF ACCESS TO FINANCIAL SOURCES

	BETA	T-VALUE	P-VALUE	VIF
(Constant)	1.229	6.469	0.000	
Entrepreneurs Characteristics	0.021	0.426	0.670	1.035
Firm Characteristics	0.119	2.218	0.027	1.168
Financial Characteristics	0.204	3.797	0.000	1.315
Policies and Procedures	0.271	6.355	0.000	1.278
R Square	0.618			
Sig.	0.000			
F	30.428			

The coefficient analysis indicates that among the four independent variables, only Financial Characteristics and Policies and Procedures have a statistically significant effect on access to financial sources, with both showing a positive relationship with the dependent variable. This suggests that financial metrics, such as stability, creditworthiness, and favourable financial policies, play a critical role in enabling women entrepreneurs to secure funding. In contrast, Entrepreneur Characteristics (such as experience, confidence, or management skills) and Firm Characteristics (such as firm size, age, or ownership type) do not show a significant effect, indicating that personal and firm-level attributes may have a more limited impact on financial access, potentially overshadowed by systemic factors or broader financial conditions.

The model's R-squared value of 0.618 implies that approximately 61.8% of the variance in access to financial sources is explained by these independent variables, leaving room for other external factors that may influence women entrepreneurs' access to finance. This reasonable R-squared value indicates that while the selected variables do have some explanatory power, access to financial resources is also affected by additional factors not captured in this model, such as market conditions, socioeconomic influences, or personal networks.

Further, the Variance Inflation Factor (VIF) for each independent variable is below 5, suggesting no multicollinearity issues, which indicates that the predictors are independently contributing to the model without redundancy. Additionally, the F-value of 30.428 and the p-value of 0.000 confirm that the overall regression model is statistically significant, meaning there is a meaningful relationship between access to finance and at least one of the independent variables.

Examining the beta coefficients, all four independent variables exhibit a positive relationship with access to finance, with Policies and Procedures showing the strongest impact (beta = 0.271), followed by Financial Characteristics (beta = 0.119). This demonstrates that the accessibility of financial resources for women entrepreneurs is especially enhanced when policies are supportive and when the financial conditions of the entrepreneur are favourable.

The findings of this study reveal several insights into the factors affecting access to financial resources for women entrepreneurs. These findings both align with and contradict existing literature. For instance, Kim et al. (2006) found that age and education negatively influenced financial accessibility, which aligns with this study's findings. Conversely, while Fay and Williams (1993) emphasize education's role in loan approvals for women, our findings suggest otherwise, perhaps due to shifts in banking demographics and perceptions, particularly with an increasing number of female loan officers in recent years. Additionally, while Chamani et al. (2017) and Kwong et al. (2012) identified a significant relationship between firm and entrepreneur characteristics with financial

access, this study found no such impact. These contrasts may be attributable to differences in sample size, demographic focus, or societal shifts in women's empowerment. The statistically significant influence of Financial Characteristics and Policies and Procedures on financial accessibility is consistent with prior studies that highlight the importance of financial stability and favourable institutional environments. Research by Berger and Udell (2006) emphasizes the role of financial metrics like creditworthiness and stability in determining lending outcomes, particularly for women entrepreneurs who often face additional challenges in securing funding. Similarly, Welter and Smallbone (2011) point out that supportive policies are vital in improving entrepreneurial access to finance, particularly in environments where traditional lending mechanisms may be less accessible. In this study, the positive beta coefficient for Policies and Procedures (0.271) reinforces that favourable regulatory and policy frameworks are crucial for financial accessibility, underscoring the need for inclusive financial policies that address gender-specific barriers.

In contrast, the non-significant effects of Entrepreneur Characteristics and Firm Characteristics contradict certain findings in previous literature. Studies like those by Carter et al. (2003) and Fairlie and Robb (2009) suggest that attributes such as entrepreneur experience, management skills, and firm age or size are key determinants of funding access. However, the results indicate that these personal and firm-level traits are not significantly related to financial accessibility for women entrepreneurs in Nepal. This divergence may be due to structural factors specific to the context of this study, such as systemic biases or socioeconomic conditions that overshadow individual and firm characteristics when it comes to accessing financial resources. Additionally, factors such as social capital, as suggested by Aldrich and Meyer (2015), maybe more influential in this context than individual characteristics or firm attributes. Moreover, the positive relationship observed for Policies and Procedures aligns with the view that policy intervention is often necessary to bridge the financing gap for women entrepreneurs. This observation supports the findings of Brush (2019), who argues that in regions where women entrepreneurs are underrepresented, policy frameworks play a compensatory role by creating a more equitable environment for accessing finance. In this study, the strong beta coefficient for Policies and Procedures underscores that the presence of supportive policies correlates with improved access to funding sources, indicating a tangible impact of inclusive financial policies.

CONCLUSION

The findings of this study highlight financial access as a persistent barrier to growth for women entrepreneurs, a challenge seen globally and mirrored in Nepal. Despite increased female literacy and a growing number of financial institutions, women entrepreneurs still face considerable obstacles in accessing financial resources. Results reveal that financial characteristics, policies, and procedures significantly influence access to finance ($p < 0.050$), while entrepreneurs' and firm characteristics do not show substantial effects. This positive correlation ($p < 0.05$) between financial aspects and policies with access to finance underscores the importance of systemic factors in enabling financial accessibility for women entrepreneurs, suggesting that strengthening these areas could meaningfully increase access to resources. Given that individual characteristics of entrepreneurs do not significantly affect financial accessibility, women-led businesses might benefit from concentrating on strengthening their firm's financial stability, a factor shown to have a direct impact. Since policies and procedures, hold a significant relationship with access to finance, regulatory authorities, and stakeholders should implement supportive financial regulations and incentives to ease financial access for women. Furthermore, the positive impact of financial acumen on financial accessibility suggests that equipping women entrepreneurs with business skills and knowledge could enhance their financial strength, particularly by prioritizing women-led ventures. Societal biases, such as the observed influence of marital status on financial access, also indicate a need for awareness campaigns that encourage communities and financial institutions to evaluate women's entrepreneurial potential independently of marital considerations. Based on these findings, the study recommends: (1) establishing mandatory lending quotas for women-led businesses with reduced collateral requirements; (2) implementing targeted financial literacy programs for women entrepreneurs; (3) eliminating marital status as loan criteria and incentivizing gender-sensitive lending products; and (4) creating a dedicated Women Entrepreneurship Development Fund with streamlined processes. This study, however, has certain limitations. The research sample was restricted to specific demographic and contextual parameters, potentially limiting generalizability across diverse economic and geographic settings. Additionally, data collection focused primarily on quantitative measures, which may have overlooked deep insights that qualitative methods could

capture. The findings offer actionable insights while encouraging further exploration to create a more inclusive entrepreneurial environment.

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PAPER – 03

INFLUENCE OF LINE EXTENSION STRATEGIES ON CONSUMER BUYING BEHAVIOR IN THE BRANDED FOOD INDUSTRY

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INTRODUCTION

Line extension strategy refers to a marketing approach where a company introduces new products under an existing brand name to capitalize on its established market presence and consumer loyalty. Instead of launching entirely new brands, companies expand their product offerings by adding variations such as new flavours, sizes, ingredients, or product types that align with the brand's core identity. This allows brands to meet the diverse preferences of consumers and attract new market segments without the high costs associated with developing a new brand. In the food industry, for instance, a brand may introduce a healthier version of an existing snack or offer a product in new packaging to cater to evolving consumer preferences.

This strategy is beneficial because it leverages the brand's existing reputation and consumer trust, often leading to quicker market acceptance. However, it also comes with risks, such as the potential for brand dilution if the new products don't meet consumer expectations or if they confuse the market. Properly executed, line extensions can help brands stay relevant, boost sales, and increase customer loyalty by offering a wider range of choices under a trusted name. Therefore, a well-planned line extension strategy is crucial for maintaining brand equity while fostering innovation and growth.

CONSUMER BUYING BEHAVIOUR

The decisions and behaviours people make when choosing, paying for, utilizing, and discarding goods and services are collectively referred to as consumer buying behaviour. Consumers' purchasing decisions are now a blend of cognitive and emotional drivers, shaped by both hedonic desires and utilitarian needs (Lee, 2023). Consumer needs, preferences, and motivations are shaped by a multitude of factors, including psychological, social, cultural, and economic influences. The purchasing process involves a number of steps that consumers must take, such as identifying a need or desire, gathering information, weighing their options, deciding what to buy, and acting upon their decision, whether they are satisfied or not. Businesses can more successfully adjust their marketing campaigns to match customer expectations by being aware of these trends. Consumer judgements regarding the fit & the quality of brand extensions directly affects the parent's overall equity (Klink & Athadide, 2010).

Several factors influence consumer buying behaviour, including personal preferences, lifestyle, brand perception, price sensitivity, and the influence of family, peers, or social groups. For example, in the branded food industry, consumers may be driven by factors such as health consciousness, taste preferences, or convenience. The rise of digital platforms and social media also plays a significant role in shaping consumer behaviour, as online reviews, influencer endorsements, and personalized advertisements impact purchasing decisions. By analyzing consumer buying behaviour, businesses can predict trends, adjust product offerings, and create targeted marketing strategies to drive sales and enhance customer satisfaction.

LINE EXTENSION STRATEGY ON CONSUMER BUYING BEHAVIOUR

A line extension strategy significantly impacts consumer buying behaviour by offering new product variations under a well-known brand, encouraging both existing and new consumers to explore the brand further. Line extension is linked to the accessibility of parent brand associations: when consumers can readily connect the new variant to the original brand, positive evaluations and purchase likelihood rise, even under moderate fit

conditions (JBR, 2020). For loyal custom For loyal customers, line extensions provide fresh and diverse options, increasing the likelihood of repeat purchases. For example, a food brand introducing a low-sugar version of its popular snack may attract health-conscious customers without losing its existing customer base. This strategy taps into evolving consumer preferences while leveraging brand trust, making it easier to introduce products that may otherwise struggle to gain traction under a new brand name.

However, the success of a line extension depends on how well it aligns with consumer expectations and preferences. A well-executed line extension can enhance brand perception by offering convenience, choice, and relevance, leading to increased customer satisfaction and loyalty. On the other hand, poorly executed extensions that don't resonate with consumer needs can lead to confusion or dissatisfaction, potentially harming the brand's overall image. Therefore, line extensions can directly influence consumer buying decisions by offering variety, addressing specific consumer needs, and ensuring the brand remains relevant in a competitive market.

LITERATURE REVIEW

The food and beverage industry's strategy framework for product innovation was created by Malekpour et al. (2023), who emphasized the importance of line expansions, such as new flavours and packaging, as crucial instruments for brand expansion. Their case study demonstrates how market leaders frequently employ capability-driven, proactive innovation, whereas market followers tend to employ more reactive tactics. According to the study, two important elements influencing successful product innovation and consumer reactions are innovation capability and competition intensity.

Sezen et al. (2023) provide a quantitative viewpoint on how product feature similarity and brand architecture affect line extension tactics' efficacy in consumer packaged goods. The study uses categorization theory to show that feature similarity considerably increases brand cannibalization, which lowers the incremental benefits from line extensions, more so than brand name similarity. The authors also discover that when feature overlap is considerable, line extensions under sub-brands have a tendency to increase cannibalization. These observations highlight how crucial it is to properly control product differentiation in line expansions in order to maximize the success of brand portfolios. Cho and Janda (2022) look into how upward product line extensions—premium versions released within an established brand—affect customer behaviour over time. Their research highlights the reciprocal effect, which states that favourable experiences with an improved extension improve parent brand perceptions and eventually impact recurring business. The study illustrates how objective service performance, perceived quality, and inter-purchase intervals all work together to influence consumer response through actual customer service interactions. Crucially, the study offers practical advice on how businesses may better utilize marketing funds by comprehending how sensitive consumers are to timing and performance in the introduction of high-end products.

Further in their research by Grime, I., Diamantopoulos, A., & Smith, G. (2002), titled "Consumer Evaluations of Extensions and Their Effects on Brand Equity", the study highlights that positive consumer evaluations of line extensions can strengthen brand equity. Extensions that are perceived as consistent with the brand's values and meet customer expectations positively influence consumer buying behaviour and brand loyalty.

In the research titled "Drivers of Brand Extension Success" By Völckner, F., & Sattler, H. (2006), Consumer acceptance of line extensions in the branded food industry is highly influenced by the perceived similarity between the parent brand and the new product. Consumers are more likely to try a line extension when they perceive it to be a logical and complementary addition to the brand's portfolio. DelVecchio, D. (2000), In the research titled "Moving Beyond Fit: The Role of Brand Portfolio Characteristics in Consumer Evaluations of Brand Reliability and Brand Acceptance." This study found that consumer buying behaviour is more favourable toward line extensions when the brand is perceived as reliable. The extension strategy must align with consumer expectations, and brands that consistently deliver on their promise are more likely to have successful extensions.

Finally to add on research conducted by Hem, L. E., & Iversen, N. M. (2009), titled "Effects of Different Types of Brand Extensions on Brand Evaluation", the study concluded that line extensions offering additional convenience or health benefits, especially in the food industry, are likely to influence

consumer buying behaviour positively. Extensions must add value while staying true to the brand's core identity, ensuring customer satisfaction and repeated purchases.

RESEARCH GAP

Despite the existing research on line extension strategies and their influence on consumer buying behaviour, several critical gaps remain that warrant further investigation. This study seeks to bridge these gaps by aligning its research objectives with current limitations in this field.

Firstly, while many studies focus on the perceived fit between the parent brand and extensions, there is limited understanding of how cultural and demographic factors like age, income, level, and urban-rural divide, may influence consumer acceptance of line extensions in the branded food industry. In a culturally diverse market like India, where food choices are deeply rooted to tradition and lifestyle, understanding these contextual nuances is essential. This study aims to address this gap by analysing how socio-demographic and cultural dimensions shape consumer responses to branded food line extensions.

Secondly, most research emphasizes short-term consumer reactions, leaving a gap in knowledge regarding the long-term effects of line extensions on brand equity and consumer loyalty. The long-term implication of line extensions on brand equity, consumer loyalty, and repeat purchase behaviour provide a scope for further investigation. These dimensions contribute to a more sustainable understanding of how line extensions either reinforce or erode brand strength over time.

Thirdly, the impact of digital marketing strategies and social media on consumer perceptions and buying behaviour related to line extensions is still underexplored. The study intends to examine how digital content strategies, influencer engagement and online brand communities impact consumer attitudes and buying behaviour related to food extensions.

Finally, while studies have addressed the risks of brand dilution, there is a need for a more nuanced analysis of how specific types of line extensions can either mitigate or exacerbate these risks, particularly in rapidly changing markets influenced by health trends and sustainability concerns. In rapidly evolving food markets shaped by health consciousness, eco-awareness, and trend-driven consumption, this study seeks to identify whether certain types of line extensions can mitigate brand dilution risk and actually enhance perceived brand relevance.

By addressing these four key gaps, namely, cultural and demographic influences, long-term brand effects, digital marketing dynamics and differentiated impacts of extension types, this study not only contributes to academic theory, but also offer practical insights for marketers, product developers and brand managers operating in the fast-paced, innovation driven branded food industry.

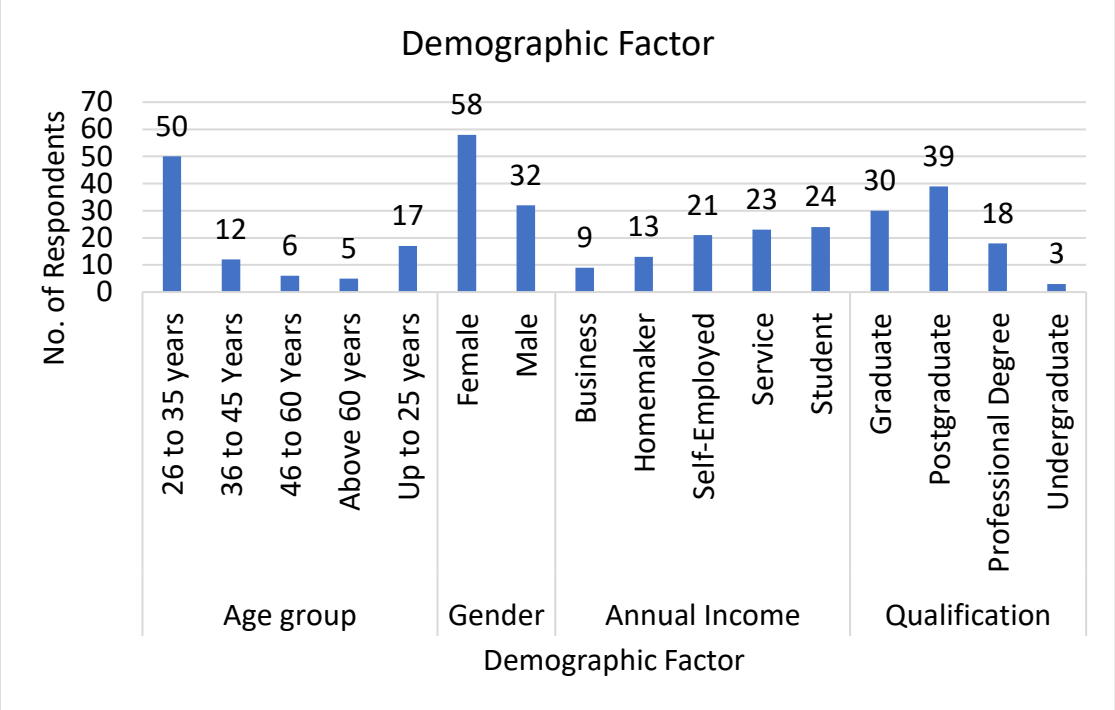
RESEARCH METHODOLOGY

The research methodology for the study on the influence of line extension strategies on consumer buying behaviour in the branded food industry was designed to achieve three specific objectives: to study consumer perception towards line extension strategies for food products, to examine the relationship between brand equity and consumer preference for line extensions, and to assess the impact of brand loyalty on consumer preference for these extensions. The study involved a quantitative research approach, employing a structured questionnaire as the primary data collection instrument. The sample comprised 90 respondents, selected through a convenience sampling method to ensure diverse representation across various demographic factors, including age group, gender, annual income, and educational qualifications. The questionnaire was designed to capture data on consumer perception regarding line extensions, brand equity, brand loyalty, and preferences related to food products. Statistical analysis was performed using software tools to conduct one-sample t-tests for objective one and Pearson correlation tests for objectives two and three, allowing for the evaluation of hypotheses related to consumer perceptions and the relationships between brand equity, brand loyalty, and consumer preferences. The demographic data collected facilitated an understanding of how different consumer segments perceive and respond to line extension strategies in the food industry, contributing to the overall analysis of consumer buying behaviour and providing actionable insights for marketers in the branded food sector.

DATA ANALYSIS
DEMOGRAPHIC FACTOR

SR. NO.	DEMOGRAPHIC FACTOR	CATEGORY	FREQUENCY	PERCENT
1.	Age group	26 to 35 years	50	21.3
		36 to 45 Years	12	36.3
		46 to 60 Years	6	21.3
		Above 60 years	5	16.3
		Up to 25 years	17	5.0
2.	Gender	Female	58	64.4
		Male	32	35.6
3.	Annual Income	Business	9	10.0
		Homemaker	13	14.4
		Self-Employed	21	23.3
		Service	23	25.6
		Student	24	26.7
4.	Qualification	Graduate	30	33.3
		Postgraduate	39	43.3
		Professional Degree	18	20.0
		Undergraduate	3	3.3

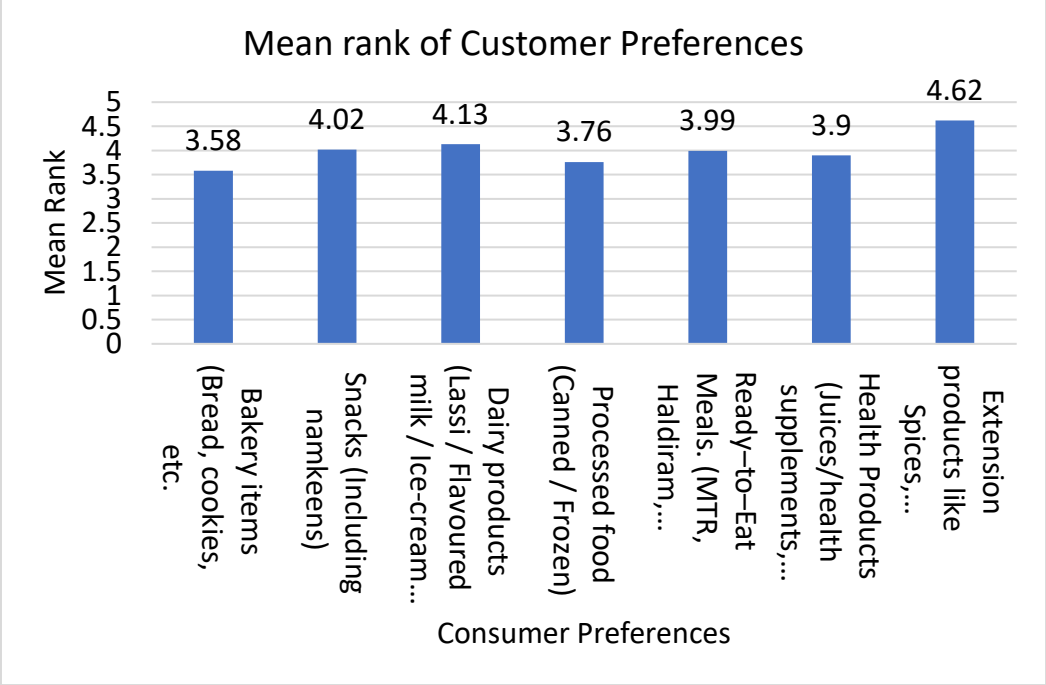
The demographic analysis of the 90 respondents in the study on the influence of line extension strategies on consumer buying behaviour in the branded food industry reveals diverse characteristics across various factors. In terms of age, the majority of respondents (36.3%) fall within the 36 to 45 years category, followed by 21.3% in both the 26 to 35 and 46 to 60 years groups, while 16.3% are above 60 years and 5.0% are up to 25 years old. Gender distribution shows a notable skew towards females, who make up 64.4% of the sample, compared to 35.6% of males. Regarding annual income, the largest group consists of students (26.7%), followed by individuals in service roles (25.6%) and self-employed respondents (23.3%), indicating a substantial representation of younger individuals and professionals. Educational qualifications also vary, with postgraduate respondents comprising 43.3% of the sample, suggesting a relatively educated participant base, while 33.3% are graduates, and a smaller portion holds professional degrees (20.0%) or undergraduate qualifications (3.3%). This demographic diversity enriches the study's findings, allowing for a comprehensive understanding of how different consumer segments perceive and respond to line extension strategies in the branded food industry. The following information is shown below in bard diagram.



ANALYSIS OF CUSTOMER PREFERENCES

RANKS	
	MEAN IMPORTANCE RANK
Bakery items (Bread, cookies, etc.	3.58
Snacks (Including namkeens)	4.02
Dairy products (Lassi / Flavoured milk / Ice-cream and more)	4.13
Processed food (Canned / Frozen)	3.76
Ready–to–Eat Meals. (MTR, Haldiram, Mccains, etc.)	3.99
Health Products (Juices/health supplements, protein bars, etc.)	3.90
Extension products like Spices, Beverages, and Grocery items.	4.62

The ranks table shows the mean importance of various product categories based on their frequency of purchase. Extension products like spices, beverages, and grocery items hold the highest rank with a mean score of 4.62, indicating that consumers prioritize these products most frequently. Dairy products (4.13) and snacks (4.02) also rank highly in terms of importance, reflecting their regular purchase patterns among consumers. Ready-to-eat meals (3.99) and health products (3.90) are also frequently purchased, though slightly less than dairy and snacks. Bakery items (3.58) and processed foods (3.76) rank lower in comparison, suggesting they are not as crucial to consumers' regular purchase behaviour as other categories. These rankings provide insights into consumer buying patterns in the branded food industry. The following information is shown below in bar diagram.



OBJECTIVE 1

To Study the consumer perception towards line extension strategies towards food products.

NULL HYPOTHESIS H_{01}

Consumer perception is neither positive nor negative towards Line extension of food products.

ALTERNATE HYPOTHESIS H_{11}

Consumer perception is either positive or negative towards Line extension of food products.

To study the above null hypothesis, one sample test is applied and the result is as follows:

ONE-SAMPLE TEST				
	Test Value = 60			
	t	Df	P-value	Mean Difference
CONSUMER PERCEPTION	11.700	88	.000	19.55056

INTERPRETATION

The above results indicate that the calculated p-value is 0.000. It is less than the standard p-value of 0.05. Hence, the null hypothesis is rejected and the alternate hypothesis is accepted.

CONCLUSION

Consumer perception is either positive or negative towards Line extension of food products.

FINDINGS

To understand the findings of the hypothesis, the mean of consumer perception towards line extension strategies towards food product customers is obtained and presented in the following table.

ONE-SAMPLE STATISTICS				
	N	Mean	Std. Deviation	Std. Error Mean
CONSUMER PERCEPTION	89	79.5506	15.76461	1.67105

The one-sample t-test results indicate that the mean consumer perception score differs significantly from the test value of 60. The t-value is 11.700 with 88 degrees of freedom (df), and the p-value is 0.000, which is highly significant. This suggests that the difference between the sample mean and the test value is statistically significant and not due to random variation. The mean difference is 19.55, meaning that on average, consumer perception is 19.55 points higher than the test value of 60, reflecting a notably favourable consumer perception.

OBJECTIVE 2

To Study the relationship between brand equity and consumer preference for line extension for food products.

NULL HYPOTHESIS H_{02}

There is no relationship between Brand Equity and consumer preferences for line extension for food products.

ALTERNATE HYPOTHESIS H_{12}

There is a relationship between Brand Equity and consumer preferences for line extension for food products.

To study the above null hypothesis, a Correlation test is applied and the result is as follows:

CORRELATIONS			
		Brand equity	Customer preferences
Brand equity	Pearson Correlation	1	.645**
	Sig. (2-tailed)		.000
	N	90	89
Customer preferences	Pearson Correlation	.645**	1
	Sig. (2-tailed)	.000	
	N	89	89
**Correlation is significant at the 0.01 level (2-tailed).			

INTERPRETATION

The above results indicate that the calculated p-value is 0.000. It is less than the standard p-value of 0.05. Hence, the null hypothesis is rejected and the alternate hypothesis is accepted.

CONCLUSION

There is a relationship between Brand Equity and consumer preferences for line extension for food products.

FINDINGS

The correlation table shows a positive relationship between brand equity and customer preferences, with a Pearson correlation coefficient of 0.645. This indicates a moderate to strong positive correlation, suggesting that as customer preferences for certain products or brands increase, the perceived brand equity also rises. The correlation is statistically significant, as the p-value is 0.000, which is well below the 0.01 threshold, confirming that the relationship is not due to random chance. With a sample size of 89-90, this result highlights that customer preferences play a significant role in shaping a brand's equity in the market.

OBJECTIVE 3

To Study the impact of brand loyalty on consumer preference for line extension for food products.

NULL HYPOTHESIS H_{03}

There is no Impact of brand loyalty on consumer preference for line extension for food products.

ALTERNATE HYPOTHESIS H_{13}

There is an Impact of brand loyalty on consumer preference for line extension for food products.

To study the above null hypothesis, a Correlation test is applied and the result is as follows:

CORRELATIONS			
		Brand loyalty	Customer preferences
Brand loyalty	Pearson Correlation	1	.809**
	Sig. (2-tailed)		.000
	N	89	89
Customer preferences	Pearson Correlation	.809**	1
	Sig. (2-tailed)	.000	
	N	89	89
** Correlation is significant at the 0.01 level (2-tailed).			

INTERPRETATION

The above results indicate that the calculated p-value is 0.000. It is less than the standard p-value of 0.05. Hence, the null hypothesis is rejected and the alternate hypothesis is accepted.

CONCLUSION

There is an Impact of brand loyalty on consumer preference for line extension for food products.

FINDINGS

The correlation table indicates a strong positive relationship between brand loyalty and customer preferences, with a Pearson correlation coefficient of 0.809. This suggests that as customer preferences align more with a brand, their loyalty to that brand increases significantly. The correlation is highly significant, as indicated by the **p-value of 0.000**, which is well below the 0.01 threshold, confirming that this relationship is not due to chance. With a sample size of 89, the data provides robust evidence that customer preferences play a key role in fostering brand loyalty in the context of the study.

CONCLUSION

In conclusion, the research findings reveal significant insights into the relationships between consumer perception, brand equity, and brand loyalty in the context of line extension strategies for food products. The one-sample t-test indicates that consumer perception towards line extensions is notably positive, as evidenced by a mean score significantly higher than the test value, leading to the rejection of the null hypothesis. Additionally, correlation analyses demonstrate strong positive relationships: a moderate to strong correlation between brand equity and consumer preferences, and a robust correlation between brand loyalty and consumer preferences. These results suggest that favourable consumer perception, along with high brand equity, plays a crucial role in enhancing brand loyalty, ultimately influencing consumer preferences for line extensions in the food industry. Therefore, brands should leverage these insights to develop effective line extension strategies that align with consumer expectations and preferences, fostering stronger connections and loyalty in the competitive food market.

CONTRIBUTION OF THE STUDY

This study makes a significant contribution to the marketing literature by empirically examining how line extension strategies affect consumer buying behaviour within the branded food industry. Through quantitative analysis and hypothesis testing, the research provides strong evidence that consumer perception, brand equity, and brand loyalty are key drivers of consumer preference for line extensions. The findings highlight that well-aligned line extensions not only enhance customer satisfaction but also reinforce brand loyalty and equity. These insights can assist brand managers in designing effective product extension strategies that resonate with target audiences, ultimately leading to increased market share and sustainable brand growth.

FUTURE SCOPE OF THE STUDY

The scope for future research is expansive, particularly in exploring the long-term effects of line extensions on brand equity and consumer loyalty over time. Future studies could adopt longitudinal or experimental designs to assess changes in consumer perception post-extension launch. There is also potential to investigate cross-cultural consumer responses to line extensions, considering regional preferences and global branding challenges. Moreover, with the rising influence of digital marketing and e-commerce, future research could analyze how online platforms, influencer endorsements, and social media engagement mediate consumer acceptance and behavioural shifts toward new brand variants.

LIMITATIONS OF THE STUDY

Despite providing valuable insights, the study has certain limitations. The sample size was relatively small (n=90) and restricted to a specific geographical and demographic profile, which may affect the generalizability of the findings. Additionally, the use of convenience sampling may introduce bias, as the sample may not represent the broader population accurately. The study relied on self-reported data, which could be influenced by social desirability or response bias. Lastly, the study focused solely on the food sector; hence, its findings may not be directly applicable to other product categories or industries without further validation.

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PAPER – 04

MICRO ENTERPRISE & ENTREPRENEURSHIP 'IN TIMES OF GROWING UNEMPLOYMENT, THE NEED FOR NURTURING AND SUSTAINING THE CONCEPT OF MICRO ENTERPRISES AND ENTREPRENEURSHIP – ARE PREPARED ENOUGH?

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INTRODUCTION

Entrepreneurship is about human beings leading to a human community development. It may be the result of lots of efforts and perseverance. The concept of an enterprise, entrepreneurship has its origin in the works richer continuum and Jean Baptist Say who introduced the concept of entrepreneur into economic thoughts. Therefore, an enterprise is a business organization that provides goods and services, create jobs, and contributes to national income. Entrepreneur is nothing else than the person, who starts an enterprise including originality, capability, skills, and difficulties, is called entrepreneurship. It's a continuous cyclical evolution which finally closes the circle of the initiator's outcome and this act is known as entrepreneurship.

OBJECTIVE – 1

Evaluating the current state of micro enterprises and entrepreneurs in India 2) Studying India's policies and initiatives in aiding the sustenance and growth of entrepreneurship in India.

APPROACH

To arrive at the above-mentioned objectives, this paper will be divided into 3 parts,

PART 1

the macro scenario of entrepreneurs & micro enterprises in this country – It's important to understand the history behind entrepreneurship & micro enterprises and what were the reforms and policies reserved for entrepreneurs/micro enterprises that led to a not so smooth road for this lot.

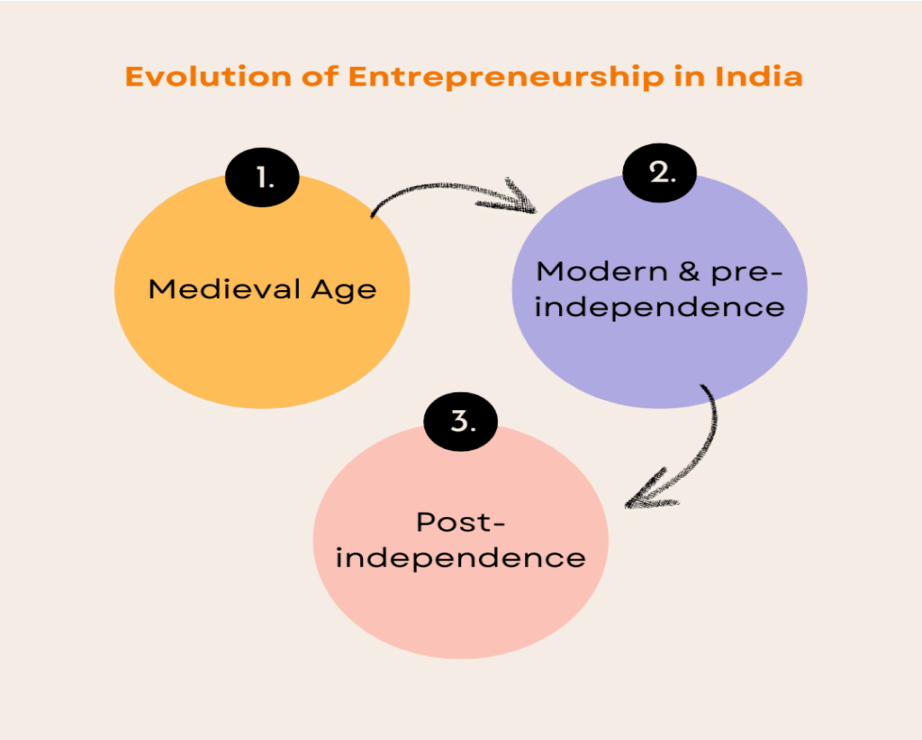
PART 2

Micro Scenario is a short survey with a small group of micro enterprise owners and entrepreneurs to understand the ground realities of the entrepreneurship environment in Mumbai. A big city overview is truly representative of India. The respondents will include micro enterprise owners belonging to business related to the industry and consumer markets; small shop owners and hawkers working with minimal resources to make a living.

PART 3
CONCLUSIONS, FINDINGS & RECOMMENDATIONS.

PART 1

Entrepreneurship in India dates to pre-colonial times (the medieval ages); pre-independence & post-independence era.



During the medieval age and in Harappan civilisation (3300-1300 B.C) the world took notice of India's entrepreneurial skills Trade escalated during the era of Mughal rule and India's popularity of Indian products, arts, crafts, Vedic tools, foods, started gaining attention in different parts of the world. The Arab islands, western colonial counties and African countries were main clients trading with Indians. But around the same time as counties like UK, France and Portugal were setting their footprints in different parts of the world, India fell prey to their expansion with the entry of the East India Company from the Bay of Bengal that later spread out across the country. The silver lining of this foreign expansion led to industrialization and the rise of certain homegrown Indian entrepreneurs such as Kawasji Dover (owner of first cotton textile mill in 1854); Jamshedji Tata founded the company Tata Group in the year 1868 giving birth to steel, airlines, and other high-rate businesses in India. Post-independence, entrepreneurship in India Prime Minister Nehru introduced the New Industrial Policy of 1956 along the lines of the Russian form of conducting business.

During the 2nd and half of the 20th century the traditional micro and macro-economic theories diminished interest for enterprise and entrepreneurship, but during the last three decades the paradigm of entrepreneurship has taken international competition and competitiveness into account.

Back then economic policies weren't conducive to the growth story of these entrepreneurs and in 1991 under the aegis of PM P.V. Narsimha Rao the New Economic Policy was introduced that opened India to the world. Private sector got a boost, public sector firms got relief through divestment, and direct foreign investment into the country was introduced creating an economic corridor.

The recently released factsheet on the Annual Survey of Unincorporated Sector Enterprises (ASUSE) for 2021-22 and 2022-23 reveals that the number of unincorporated enterprises fell to 5.03 million in the April-July 2021 period during the second Covid-induced lockdown but rebounded in the following months and the figure for the whole of 2021-22 rose to 59.7 million. There was a 5.88% increase in 2022-23 to 65 million units. But compare

that with the pre-pandemic period, the increase is minimal. In the ASUSE 2015-16, there were 63.3 million unincorporated firms in the country.

But in present day, 24 years after the New Economic policy, the pandemic, and post pandemic where does India stand in incubating entrepreneurs? This paper evaluates how far has India come in implementing economic policies to sustain an ecosystem conducive to entrepreneurs.

PART 2
METHODOLOGY

One on one interviews were conducted with a total of 30 enterprises/entrepreneurs consisting of small business owners/street vendors/skilled workers such as plumbers, carpenters, drivers, independent mechanics. The respondents resided in Mumbai but were natives of different states across the country who moved to big cities in search of livelihood. The purpose of the questions was to elicit responses about their drive and motivation to deal with the challenges they face in sustaining their businesses.

The respondents belonged to a cluster of the following:

- Street vendors
- Independent mechanics
- Computer services
- Lawn and landscaping companies
- Small farmers
- Carpenters
- Accounting
- Plumbers
- Machine shop operators
- Shoemakers

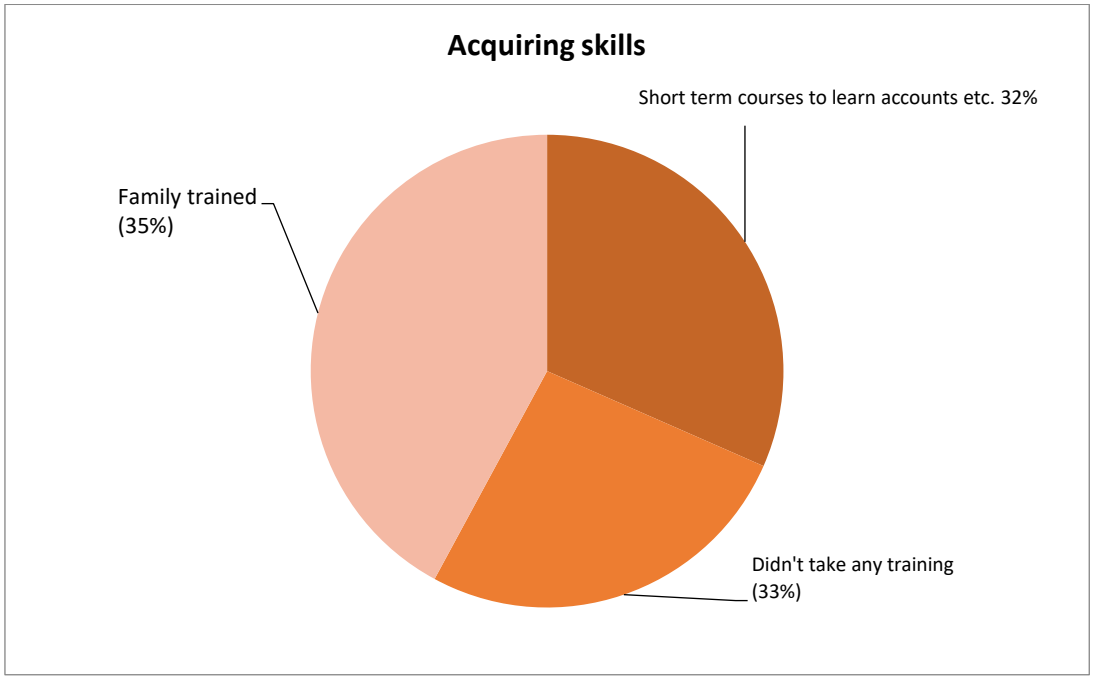
Questionnaire – the Questionnaire was divided into 2 types of respondents (Micro enterprise owners – such as organized owners e.g. garage owners/shop owners/small manufacturing units & unorganized owners such as street vendors and skilled workers (plumbers, carpenters) .

SECTION 1 – ORGANIZED MICRO OWNERS

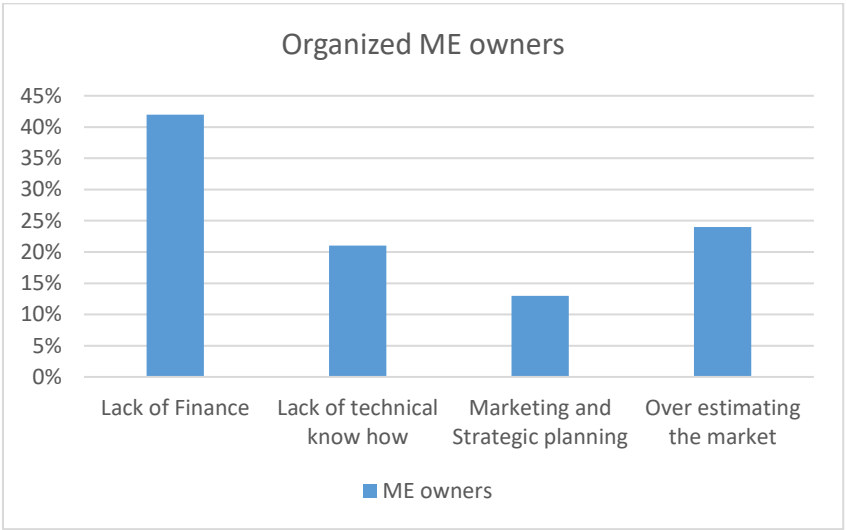
- What drove you into starting your own business?

REASONS	% OF RESPONDENTS
Family business	35
Ease of starting a business	10
Aspirations to become a big business house	30
2016 boom of 'Start up India/Make in India' initiative	18
Unemployment	7

- Did you have to acquire special skills/training?



- What are the challenges you face in sustaining your business?



- What reforms or aid do you expect in running your business?

REASONS	% OF RESPONDENTS
Loans on low interest	35
Relaxed lease terms for rental premises	10
Too many restrictions & documentation	30
Infrastructural issues	18

*Most admitted that the Government had already implemented policies in their favour post the pandemic. They mentioned about the NMCP program and the INCUBATOR programs.

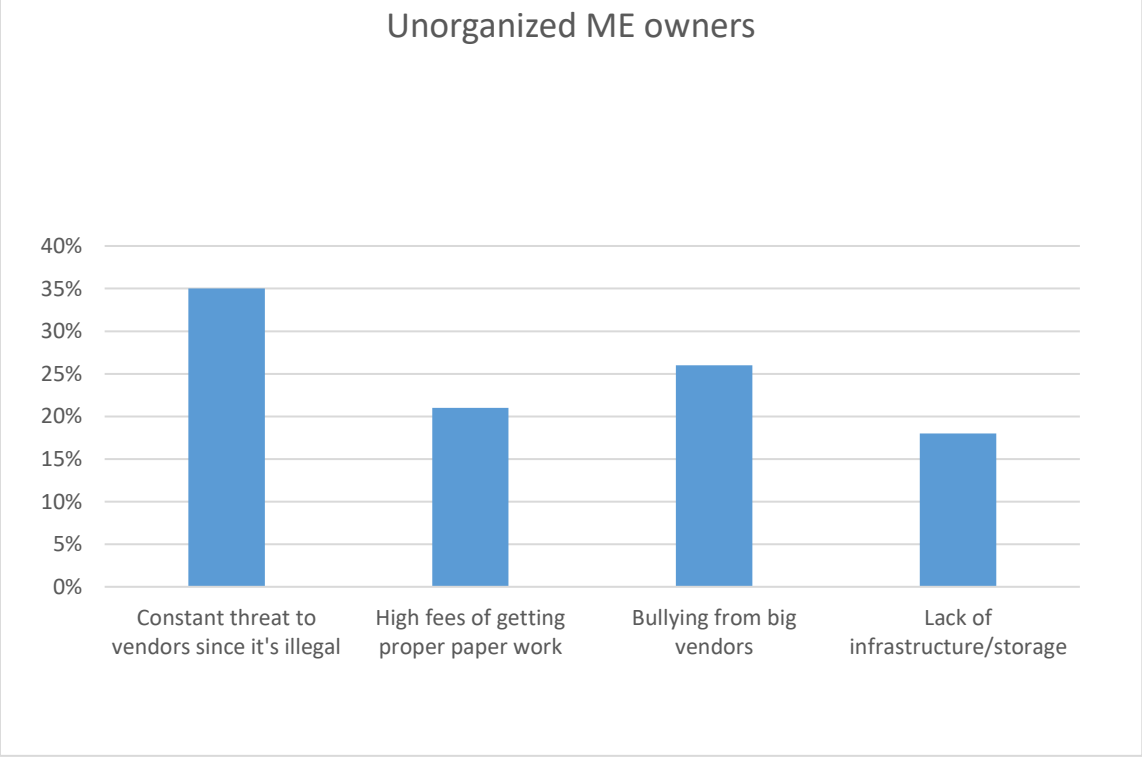
Section 2 – Unorganized Micro Enterprise (street vendors/skilled workers)

- What drove you into starting your own business?

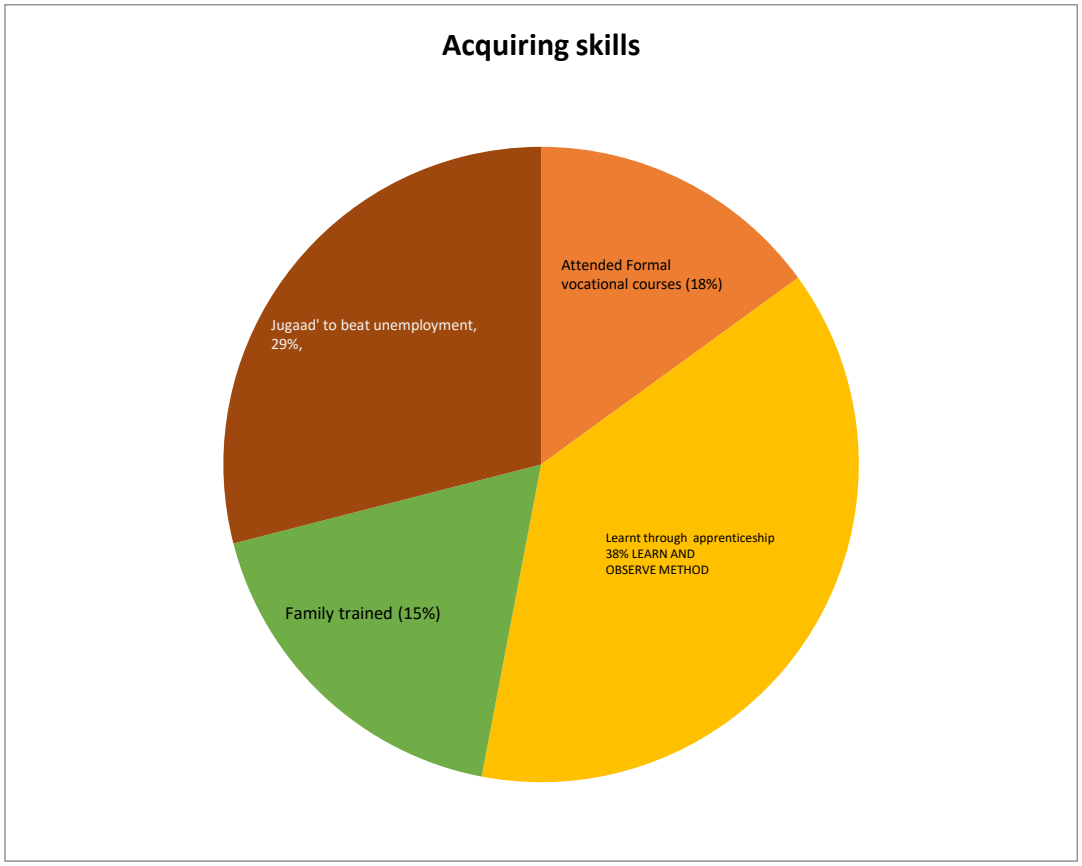
REASONS	% OF RESPONDENTS
Attitude of 'my business my rules'	25
No infrastructure hassles or rental qualms	21
Aspirations to become an organized shop owner with proper paperwork	30
Profitability/high margins	8
Unemployment	16

Many times, road repairs and infrastructural changes affect these micro enterprises spread out in the city at strategic location thus hampering business

- What are the challenges you face in sustaining your business?



- Did you have to acquire special skills/training?



*Jugaad is a slang word in Hindi used to describe the various unprofessional methods used to run a business when things go south.

- What reforms or aid do you expect in running your business?

REASONS	% OF RESPONDENTS
Assign legal spots to street vendors to sell	32
Ease of getting licences to sell	20
Regulate pricing to avoid heavy bargaining from buyers.	28
Introduce street vendor start-up kits to facilitate uniformity in setup	20

Both organized and unorganized micro enterprises require registration and licences. Unorganized micro enterprises usually are in dire straits when they are required to acquire FSSAI licences (food vendors) and city trade license to conduct business. Most violate quality standards and are issued penalties which are in the range of 1- 2 lakhs. FSSAI licence fees vary in the range of Rs. 3000 – Rs. 7000. Most don't renew due to lack of infrastructure.

Additionally, respondents added the following reasons about why they felt vulnerable while conducting business – (THE GOOD AND THE BAD)

- Fluctuating prices and inventory issues. A lot of stuff (mostly food) gets spoilt due to lack of proper storage.
- High profitability and easy logistics to conduct their business make them move to bigger cities.
- Micro enterprises don't give any benefits to their employees due to the low turnover. Street vendors usually resort to municipal hospitals for health check-ups.
- Startup firms such as tech firms and aggregators (OLA, Swiggy, Urban clap) follow an incentivised rating system for their unskilled and skilled workers. During Covid, most aggregators ensured their low rung

employees who needed to travel to render services such as food delivery/plumbing/carpentry were given vaccination. No specific health benefits are given to these 'organized micro enterprise'.

- Some unorganized micro enterprises admitted having a mental block against getting licences and registering their business since that would involve paying taxes on a regular basis.
- When they were briefed about the various schemes introduced by the government, respondents were unaware of the various government schemes designed to help them. 80% of respondents were ignorant about the schemes/policies.

Micro enterprises in India both organized as well as unorganized are of 0.5% of all MSMEs. Out of the several schemes implemented by the Indian government, following is a short-list of schemes relevant to small businesses.

1. Micro & Small Enterprises Cluster Development
2. Credit linked capital scheme for technical upgradation
3. Micro finance program facilitated by Small Industries Development Bank of India (SIDBI) that issues loans against 10% of fixed deposit against loan amount. Preference given to women entrepreneurs. Micro finance institutions and NGOs can apply.
4. MSME Market development Assistance where registered micro enterprises are encouraged to attend international trade fairs for upgrading their knowledge about inventions in their area of business in the global arena,
5. Support of Entrepreneurial and Managerial development (setting up business incubators) of small micro enterprises - these are mostly tech start-ups that would provide commercial gains after a year,
6. The National Small Industries Corporation have introduced a credit system for small enterprises to ease loan sanctions based on their past credit records.
7. Artisan based subsidies and loans schemes for Khadi manufacturers

PART 3 (FINDINGS, CONCLUSIONS, & RECOMMENDATIONS)

FINDINGS & CONCLUSIONS

a) As per the Annual Survey of Unincorporated Small Enterprises (ASUSE) there's been an increase in micro enterprises post pandemic but the increase hasn't been an imploding number – only a 5.8% increase.
b) Also, government schemes are skewed to 'Tech start-ups.
c) Many street vendors preferred to work with aggregators but hold back due to lack of education. This sentiment has been noted with unorganized small street vendors.
d) A significant no. of organized small businesses is NOT availing government schemes for lack of knowledge, on the other hand unorganized small businesses (street vendors) aren't availing schemes because they have nothing designed for their business except their strong union in the form of the 'National Hawker Federation'

CONCLUSIONS

a) There's been a considerable rise in unorganized skilled workers who have aligned themselves with service aggregators such as Urban Clap
b) The no. of schemes introduced by the government when mapped with the responses of 'Organized MEs' there seems to be a disconnect. Why are small enterprises not taking advantage of Government schemes indicating lack of knowledge or fear of paperwork.
c) Owing to India's young population- the power of digitization has worked leading to unskilled workers such as delivery boys, drivers aligning themselves with cab aggregators such as OLA, UBER, SWIGGY. These workers aren't full time employees yet enjoy least risk conducting their business.
d) Ease of conducting business still ranks low for both organized and unorganized Micro enterprises.
e) Street vendors have the right to start business anywhere but there are plenty of loopholes, for instance, they need to be assigned a spot otherwise the threat of conducting business illegally on roadside pavements becomes the only alternative.
f) A lot of schemes have been introduced but they need to be implemented in a manner that it reaches fruition.

RECOMMENDATIONS

It's a cause for concern that street vendors that make up for a significant amount of India's business community remain neglected. Countries like China rank 37 in 'Ease of doing business' while India ranks 137. India needs to act aggressively on this front. The author strongly recommends a bottoms-up approach to make India a supremely powerful business nation. Let's not forget, business tycoon the late Dhirubhai Ambani started his career as a street vendor.

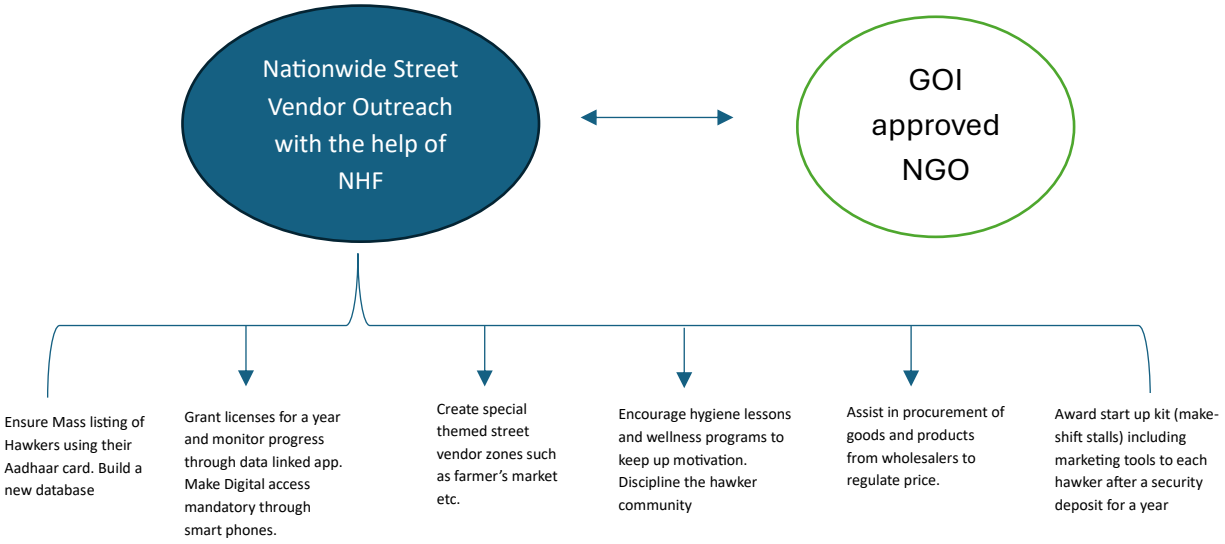
The number of street vendors has significantly increased in major cities worldwide, particularly in developing regions like Asia, Latin America, and Africa.

In India, approximately **49.48 lakh street vendors** have been identified, with **Uttar Pradesh** having the **highest count at 8.49 lakh,** followed by Madhya Pradesh at 7.04 lakh. Conversely, Delhi has about 72,457 identified street vendors, while none have been identified in **Sikkim.**

(Reference mentioned in footnote for the following timeline)

The author recommends:

a) A nationwide 'OUTREACH' programme with the help of the National Hawker Federation and a Government of India (GOI) approved NGO to educate hawkers the advantages of registering their businesses.
Note: The **National Hawker Federation** is an association of Street Vendors across **28 States** in the country, with **1250+ Unions**, including 11 Central Trade Unions & over 20 International Trade unions abroad who have been working on the rights on street vendors for the past 20 years throughout the country.



a) Constant monitoring of the NHF so that they don't resort to anti-social methods of influencing street vendors to cause mayhem.
b) Increase awareness amongst organized small business owners such as garage owners, small manufacturing units, spas, supermarkets, etc. to avail GOI implemented schemes.
c) Develop entrepreneurship at grassroot level in schools across India by introducing special wellness programmes to keep students motivated and increase their risk-taking ability
d) <u>An entrepreneur is a risk-taker, is a decision-maker, and is a nurturer who needs to be sustained by effective wellness programs and training.</u>

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EDUCATION

PAPER – 05

TEACHING ENGLISH THROUGH BLENDED LEARNING FOR DEVELOPING THE 21ST-CENTURY SKILLS OF U.G STUDENTS: AN EXPERIMENTAL STUDY.

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INTRODUCTION

Blended learning is not a new method in the teaching field, but it has gained attention. It was introduced during the closures caused by the COVID-19 pandemic to ensure learning continuity and keep students engaged and motivated. Teaching in a face-to-face classroom environment with the help of online materials will enhance the learner's engagement towards learning. Students will successfully acquire 21st-century skills in this manner. Blended learning is increasingly becoming a viewpoint for students in higher education. It enables using the Internet or computer-based techniques to enhance face-to-face interaction between teachers and learners (Morris 2010). 21st-Century Skills refer to the knowledge, life skills, career skills, Digital Competence, and 4Cs (Creativity, Critical Thinking, Collaboration, and Communication) that are critically important to student success in today's world, particularly as students move on to college, the workforce, and adult life. (Jenna Buckle 2020)

Thus, the study aims to enlarge learner autonomy in Blended Learning and develop 21st-century Skills through Blended learning methods for easy and effective language teaching and learning. In addition, adopt an uninterrupted learning experience in English using the latest technology. And also, to include the Blended learning method and 21st-century Skills development as a subject of learning in the curriculum. Moreover, to build an extra flexible and inclusive education system for the future. English language teaching is an essential part of the school curriculum nowadays; it must cultivate knowledge and skills in line with technological and social developments. English is an international language that is accepted as an open door in the 21st century.

Role of Blended learning in developing 21st Century Skills

One of the key advantages of blended learning is its ability to foster self-directed learning and critical thinking skills in students (Amosa Isiaka Gambari, 2017). By incorporating online modules and resources into the curriculum, students are encouraged to take ownership of their learning and engage in independent research and problem-solving activities (Kintu, M.J. 2017). This helps to develop their ability to analyse information, think creatively, and make informed decisions, all of which are essential skills in the 21st-century workforce (William Xavier Toro, 2019). Blended learning also promotes collaboration and communication skills among students. Through online discussion forums, group projects, and virtual team activities, students learn how to work effectively in teams, collaborate with peers, and communicate their ideas clearly and persuasively. These are valuable skills that are in high demand in today's interconnected and globalized world, where effective communication and teamwork are essential for success (Lee Yen Chaw, 2013)

Another crucial aspect of blended learning is its emphasis on digital literacy and technology skills. In today's digital age, proficiency in using technology and online resources is a must-have skill for students to succeed in their academic and professional pursuits (Paul Erik Rosenbaum, 2012). By incorporating online learning platforms, multimedia tools, and interactive simulations into their learning experience, students can develop their digital literacy skills and become adept at using technology to enhance their learning and productivity (Philip Rotich, 2013). Blended learning also promotes adaptability and flexibility in students. With the ability to access course materials and resources online, students can learn at their own pace and customize their learning experiences to suit their needs and preferences. This flexibility allows students to take control of their learning

process and adapt to different learning environments, leading to greater resilience and adaptability in the face of challenges and changes (Maria Josephine, 2015).

In addition, blended learning also fosters creativity and innovation in students. By incorporating multimedia tools, interactive simulations, and project-based learning activities into the curriculum, students are encouraged to think outside the box, take risks, and explore new ideas and concepts (Hixson, 2012). This helps to develop their creativity and problem-solving skills, which are essential for success in the 21st-century workplace where innovation and creativity are highly valued (Kristin Firmery Petrunin, 2019). Blended learning also helps to bridge the gap between theory and practice. By combining traditional classroom instruction with online resources and real-world applications, students can see the relevance and applicability of what they are learning to their everyday lives and future careers. This enhances their motivation and engagement in the learning process, leading to deeper understanding and retention of knowledge and skills (Garrison, D. R., & Kanuka, H., 2004).

Another key benefit of blended learning is its ability to provide personalized and differentiated instruction to meet the diverse needs and learning styles of students. By incorporating online assessments, adaptive learning platforms, and individualized learning plans, teachers can tailor instruction to address the specific strengths, weaknesses, and interests of each student, ensuring that all students can achieve academic success and develop essential 21st-century skills (Christopher Scott Boe, 2013).

Furthermore, blended learning also promotes lifelong learning and continuous improvement in students. Exposing students to various online learning resources, professional development opportunities, and self-assessment tools encourages them to take ownership of their knowledge and pursue continuous growth and development throughout their academic and professional careers (Priyanka Datta, 2014). This instills in students a growth mindset and a passion for learning that will serve them well in the ever-changing and competitive 21st-century workforce.

ENTRY BEHAVIOUR

At the start of the study, a pre-assessment was conducted to evaluate the students' baseline knowledge, skills, and attitudes toward English language learning and 21st-century competencies. On understanding the knowledge and the skill set of learners in the English Language, a blended learning classroom environment was developed in a novel way to engage the learners. The study has been conducted among 100 college students pursuing 1st year of graduation in English at various colleges of Madurai district, Tamil Nadu. The research has been executed through pre-test, post-test, and analytical rubric assessment. It has been understood from the pre-test that 60% of students are struggling to communicate in the English language. More than that, they are facing a lack of confidence, stage fright, mispronunciation, and fluency of words while speaking. Many of them have learning difficulties like dyslexia, too. Moreover, the study revealed that most of the learners lack the skills that are required at the undergraduate level.

Furthermore, the research could create English language teaching and learning methods like mobile-assisted learning, computer-assisted learning, ICT language teaching, gamification, infographics, and the theory of multiple intelligences. In addition, the study will utilize the methodological tools of Mobile Apps, Online Video Conference (Zoom, Google Meet), Interactive e-Games, Web 2.0, Augmented Reality and Virtual Reality, Info-graphics, Brain Gym, Vlog, Social Websites (WhatsApp, FB, Instagram, Twitter, and more). Chat GPT, Chatbots, Google Bard, AI tools, etc., have improved the English language and 21st-century skills of the learners. Students were engaged in peer activities, pair work, and individual activities including Reading News, self-introduction, Paralinguistic communication, Pronunciation check, Emotive speaking, Rhetorical speech, Role-play, Debate, Chat with AI tools, mini-drama, Story chain, Shadow Speaking, Translation, Ted-Talk, Creative Writing and speaking, chat and find, etc. Worksheets, Newspaper cuttings, flashcards, pictures, models, and audio-visual clips were used as classroom materials. Students were often motivated to execute the task. The tasks were practiced in such a way that motivation and entertainment played a pivotal role in practicing each activity. Both teacher-led and learner-led classrooms were organized with rule-free learning conditions. It has been found that the Blended learning mode of the classroom improves the 21st-century skills of students. The participants

were able to adapt, create, and be flexible in using the English language. 21st-century skills play a prime role in the learning process.

EXIT BEHAVIOUR

The study was directed with brainstorming/problem solving, creative speaking and writing, picture description, mind mapping, role-play, group discussion, oral presentation, and activities in real-life situations etc. In the progression, advanced AI tools were exclusively allotted for English language training and practice. For this research, it has followed an innovative testing and evaluation procedure called the Analytical Rubric assessment was followed. After the learning, the study administered a series of assessments to evaluate the students' learning outcomes and the development of their 21st-century skills. These "exit" assessments were designed to measure the growth and improvement in areas such as critical thinking, communication, collaboration, and creativity, comparing the performance of the blended learning group with the control group receiving traditional instruction. Though the results have been discussed, it becomes essential to analyse the growth and achievements of the participants through their exit behaviour. Exit-behaviour or post-test score reveals that there is a tremendous achievement in terms of development in 21st-century skills. Post-test Analytical Rubric score is given below.

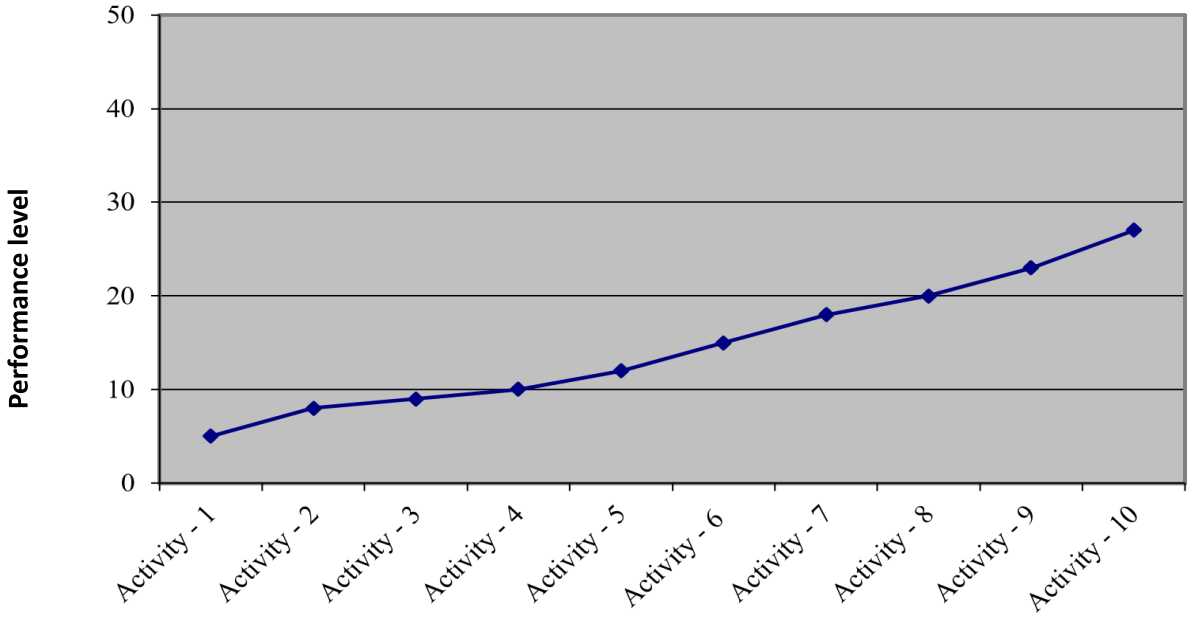
ANALYTIC RUBRIC OF ACTIVITY – 1

BASED ON 21ST CENTURY SKILLS DEVELOPMENT, THE BLENDED LEARNING METHOD							
Activity1	Content	Advanced (7-9)	Proficient (4-6)	Basic (2-3)	Minimal (0-1)	Score (10)	Remarks
Task – A	Draw a picture that would symbolize you	The main thought was clearly expressed	Presented the thought, but not always coherent	The thought was expressed with limited explanation	Used limited language to explain	5	Confidence improved
Task – B	Love Letter	Presented the language consistently with coherence	Used the language associated with the letter with few errors	Language had mistaken that which impeded meaning	Committed mistakes and thoughts were not clearly expressed	6	Participation brought up
Task – C	Chat with AI	Did the conversation effectively	Faced some difficulty in conveying meaning	Involved in limited conversation	Made limited conversation	5	Made to be brisk
Task – D	Debate	Attended with full confidence	Attended with fluent language	Attended with a positive spirit	Attended and responded adequately	6	Reasoning and problem-solving skills got improved
Task – E	Creative Speaking	Spoke with full confidence	Spoke in fluent language	Spoke with a positive spirit	Spoke and responded adequately	7	Creativity and developing

TOTAL SCORE 29/50

TABLE 1. RUBRIC RATING OF ACTIVITY 1

Consolidated Analytical Rubric of 21st Century Skill Development



ACTIVITIES CONCLUSION

Teaching English through blended learning offers a powerful and effective approach to developing 21st-century skills in students. By combining traditional classroom instruction with online learning activities, blended learning provides students with a comprehensive and personalized learning experience that promotes self-directed learning, critical thinking, collaboration, communication, digital literacy, adaptability, creativity, innovation, relevance, personalization, and lifelong learning. As the growth of the English language increases day by day, we continue to navigate the complexities of the modern world, where blended learning will play a progressively crucial role in preparing students for success in the 21st century and beyond. As it has been in exit behaviour, the students of the experimental group were treated by an expert teacher or guide in a Blended Learning Classroom mode, and hence the results improved tremendously, and they were able to use their 21st century skills for better English learning.

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PAPER – 06

EFFECT OF METAEMOTIONAL STRATEGIES ON DIVERGENT PRODUCTION ABILITIES AND COGNITIVE DISSONANCE

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INTRODUCTION

Emotions are complex responses that play a crucial role in human behaviour, decision-making, and cognitive processing. They can be understood from various perspectives, including psychology, neuroscience, sociology, and education. Recent research has highlighted the importance of metaemotions, which refer to the awareness and regulation of one's own emotional state and the emotions of others. This meta-cognitive understanding can significantly influence creativity and problem-solving abilities.

In educational contexts, fostering creativity is essential for student development, particularly as we prepare learners for an increasingly complex and dynamic world. Divergent production abilities, a key aspect of creativity, involve generating multiple solutions to open-ended problems. Conversely, cognitive dissonance—defined as the mental discomfort experienced when holding conflicting beliefs or attitudes—can hinder decision-making and creative processes.

OBJECTIVES OF THE STUDY

This study aims to examine:

- The effect of metaemotional strategies on the divergent production abilities of adolescents.
- The impact of metaemotional strategies on cognitive dissonance among adolescents.

RESEARCH QUESTIONS

1. How do metaemotional strategies influence the divergent production abilities of adolescents?
2. In what ways do these strategies affect cognitive dissonance in students?

LITERATURE REVIEW

METAEMOTIONS

Metaemotions are an emerging area of interest in emotional intelligence research. They encompass the ability to reflect on one's emotions and the impact of those emotions on thought processes and behaviors. Studies have shown that individuals with high metaemotional awareness are better equipped to manage their emotional responses, leading to improved coping strategies and enhanced interpersonal relationships (Brackett et al., 2006).

Gottman et al. (1996) distinguished between parents' "metaemotion philosophy" and their actual way of approaching their own and their children's emotions. An organized set of thoughts about emotions seems parallel to metacognitive knowledge, which refers to people's declarative knowledge about cognitive processes. One suggestion would therefore be to categorize this form of metaemotion as metaemotional knowledge. Declarative metacognitive knowledge can further be subdivided into different knowledge areas, for example, between knowledge of self and others, and knowledge of task and context (Tarricone, 2011). The latter could for instance refer to knowledge of human memory and the situational and behavioural factors that may influence a person's memory. A similar subdivision of declarative metaemotional knowledge could be made between knowledge of one's own and others' emotions, general knowledge about emotions, knowledge about specific emotions, and knowledge about situational and behavioural factors that may influence a person's emotions.

DIVERGENT PRODUCTION ABILITIES

Divergent thinking is often contrasted with convergent thinking; the former is associated with creativity and the generation of multiple ideas, while the latter focuses on finding a single, correct solution. Torrance (1974) emphasized the importance of fostering divergent production abilities in educational settings, arguing that creativity can be nurtured through specific instructional strategies that promote openness and exploration. A creative person is an important requirement in the global world, and this makes divergent thinking an increasingly important area in education. The first person who defines creative thinking was Torrance, who defined it as “the ability to sense problems, make guesses, generate new ideas, and communicate results” (1965, 1966, 1988, as cited in Wang, 2011).

COGNITIVE DISSONANCE

Cognitive dissonance theory (Festinger, 1957) posits that individuals strive for internal consistency among their beliefs, attitudes, and behaviors. When faced with conflicting information, individuals may experience discomfort, leading them to change their beliefs or rationalize their choices. Research indicates that heightened awareness of emotions can alleviate cognitive dissonance by facilitating more informed decision-making (Harmon-Jones et al., 2008).

METAEMOTIONAL STRATEGIES IN EDUCATION

The integration of metaemotional strategies into educational practices has the potential to enhance students' emotional intelligence, thereby fostering creativity and reducing cognitive dissonance. By teaching students to recognize and reflect on their emotional states, educators can cultivate an environment conducive to exploration and creative problem-solving.

METHODOLOGY

PARTICIPANTS

Fifty adolescents from class 11 at a government school in Chandigarh participated in the study. The participants were selected randomly and divided into two groups: an experimental group and a control group, each consisting of 25 students.

DESIGN

An experimental design was utilized, involving pre-tests and post-tests to measure the outcomes of interest.

1. **PRE-TEST**
   Both groups completed tests to assess their baseline levels of divergent production abilities and cognitive dissonance.
2. **INTERVENTION**
   - The experimental group underwent a one-month program focused on metaemotional strategies, including workshops and activities designed to enhance emotional awareness and regulation.
   - The control group received standard curriculum instruction without specific emphasis on metaemotional strategies.
3. **POST-TEST**
   After the intervention, both groups were assessed again to determine any changes in their divergent production abilities and levels of cognitive dissonance.

MEASURES

1. **DIVERGENT PRODUCTION ABILITIES**
   Assessed using the Torrance Tests of Creative Thinking (TTCT), measuring fluency, flexibility, and originality.
2. **COGNITIVE DISSONANCE**
   Evaluated through a standardized cognitive dissonance questionnaire, which asked participants to report their feelings and attitudes regarding conflicting beliefs.

DATA ANALYSIS

Data were analyzed using descriptive statistics and inferential statistics, including t-tests and ANOVA, to compare pre-test and post-test scores between the experimental and control groups.

RESULTS

Divergent Production Abilities

Pre-test and Post-test Scores

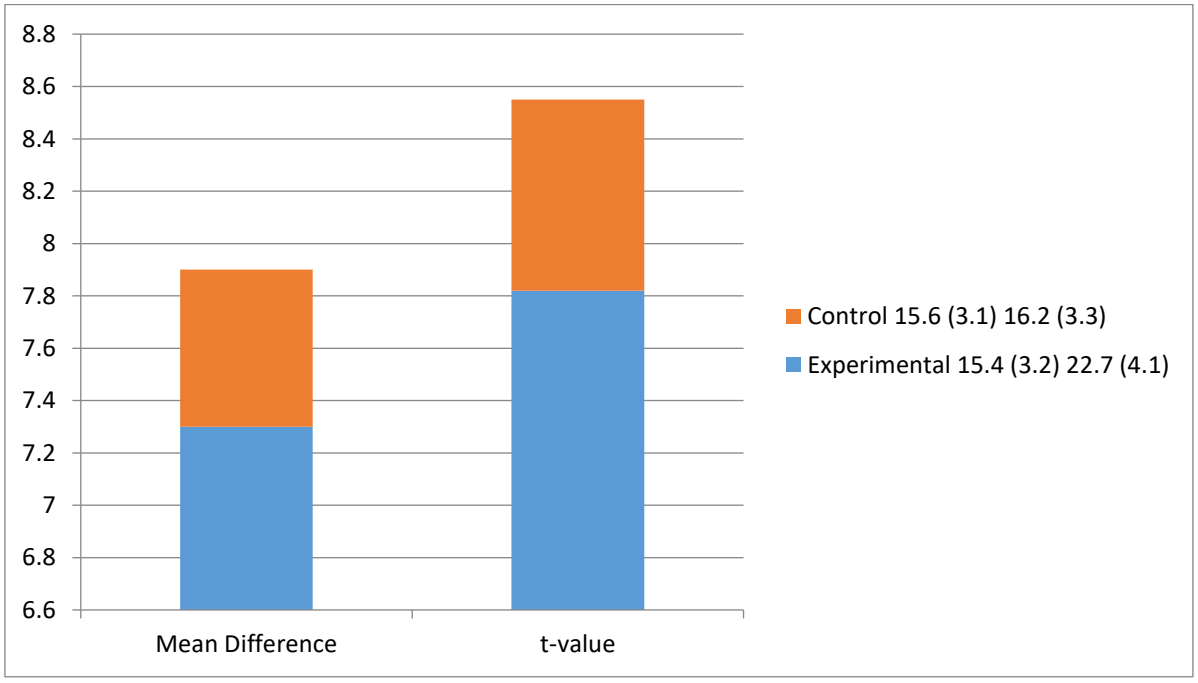
The following table summarizes the pre-test and post-test scores for divergent production abilities in both groups.

GROUP	PRE-TEST MEAN(SD)	POST-TEST MEAN (SD)	MEAN DIFFERENCE	T-VALUE	P-VALUE
Experimental	15.4 (3.2)	22.7 (4.1)	7.3	7.82	<0.001
Control	15.6 (3.1)	16.2 (3.3)	0.6	0.73	0.47

The experimental group showed a significant increase in divergent production abilities from pre-test to post-test ($p < 0.001$), indicating the effectiveness of metaemotional strategies in enhancing creativity.

Figure 1: Change in Divergent Production Abilities

Graph illustrating the scores for the experimental group compared to the control group.



Cognitive Dissonance

Pre-test and Post-test Scores

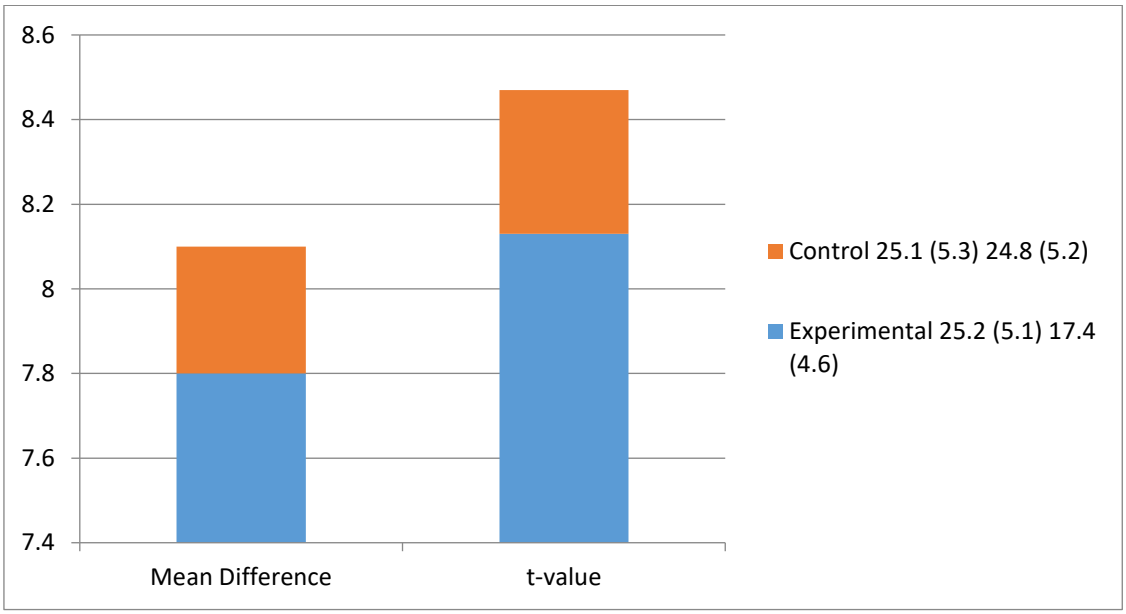
The following table summarizes the pre-test and post-test scores for cognitive dissonance.

GROUP	PRE-TEST MEAN (SD)	POST-TEST MEAN (SD)	MEAN DIFFERENCE	T-VALUE	P-VALUE
Experimental	25.2 (5.1)	17.4 (4.6)	7.8	8.13	<0.001
Control	25.1 (5.3)	24.8 (5.2)	0.3	0.34	0.74

The experimental group demonstrated a significant reduction in cognitive dissonance scores from pre-test to post-test ($p < 0.001$), while the control group showed no significant change.

Figure 2: Change in Cognitive Dissonance

Graph illustrating the scores for the experimental group compared to the control group.



DISCUSSION

The results of this study highlight the significant impact of metaemotional strategies on both divergent production abilities and cognitive dissonance among adolescents.

IMPLICATIONS FOR DIVERGENT PRODUCTION ABILITIES

The experimental group's substantial increase in creativity underscores the importance of emotional awareness in fostering innovative thinking. By learning to recognize and regulate their emotions, students can enhance their creative processes, enabling them to generate a wider range of ideas and solutions. These findings align with previous research indicating that emotional intelligence is closely linked to creativity (Amabile, 1996).

IMPACT ON COGNITIVE DISSONANCE

The significant reduction in cognitive dissonance within the experimental group suggests that metaemotional strategies equip students with the tools to better manage conflicting beliefs and emotions. By fostering emotional awareness, students can engage in more reflective thinking, ultimately leading to greater alignment between their beliefs and actions. This finding supports the notion that emotional regulation can mitigate cognitive dissonance, thereby enhancing decision-making processes (Harmon-Jones et al., 2008).

PRACTICAL APPLICATIONS

Given the findings, educational institutions should consider integrating metaemotional education into their curricula. Programs aimed at developing emotional intelligence and awareness can provide students with the skills necessary to navigate complex emotional landscapes, ultimately enhancing both creativity and decision-making abilities.

LIMITATIONS

While this study provides valuable insights, it is not without limitations. The relatively small sample size and short duration of the intervention may affect the generalizability of the findings. Future research should involve larger, more diverse populations and longer-term interventions to better understand the enduring effects of metaemotional strategies.

CONCLUSION

The study confirms that metaemotional strategies significantly enhance divergent production abilities and reduce cognitive dissonance among adolescents. These findings highlight the potential for emotional education to foster creativity and improve decision-making skills in educational settings. By prioritizing the development of emotional awareness, educators can equip students with essential skills for personal and academic success.

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Meta-Emotion: How You Feel About Feelings (gottman.com)

PAPER – 07

SERVQUAL: ASSESSING SERVICE QUALITY IN DISTANCE EDUCATION AT PONDICHERRY UNIVERSITY – A CASE STUDY

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INTRODUCTION

The increasing demand for distance education over the past two decades has led to significant growth in the number of adult learners opting for this mode of learning. This trend is driven by the flexibility offered to those who missed traditional education opportunities due to employment, family, or other personal reasons. With the mushrooming of distance education institutions, the quality of distance education has been compromised. Recently the University Grants Commission (UGC) in India has adopted several stringent measures to improve the quality of distance education and to bring at par with traditional education system. This study seeks to explore the service quality of Pondicherry University's distance education program, focusing on student expectations and identifying areas for improvement.

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

The literature review shows that several studies has been carried out with the help SERVQUAL instrument to measure service quality in higher education. Legčević (2009), Chui et al. (2016) and Parasuraman et al. (1985). The study of Zeshan, Afridi, and Khan (2010) among eight business schools in Pakistan found that the students perceived low quality in all five dimensions of service quality (tangibles, reliability, responsiveness, assurance, and empathy) in all institutes. Abu Hasan, Abd Rahman, and Abd Razak (2008) conducted a study in private higher education institutions found that overall service quality had a significant relationship in all five dimensions and. Khodayari and Khodayari (2011) conducted a study at Islamic Azad University in Iran and their results showed that there was a gap between student's expectations and perceptions.

In their research on service quality within an Australian university, Soutar and McNeil (1996) findings indicated that students expressed a high level of satisfaction with the quality of the academic units they assessed. LaBay and Comm (2003) conducted a pilot study assessing the comparative student satisfaction between distance education and traditional course delivery. In 2011, Udo, Bagchi, and Kirs conducted a study to assess the relationship between the quality of e-learning in distance education and student satisfaction. They proposed a modified SERVQUAL model for their evaluation and discovered a significant connection between e-learning quality and the satisfaction levels of students. In 2012, Mantovani conducted research that demonstrated a notable correlation between the perceived quality of services in distance education and the satisfaction of students. Following this, various studies within higher education settings revealed that the quality of service positively influences student satisfaction (Jiewantoa, Laurens, & Nellohc, 2012; Meštrović, 2017).

SERVICE

Services are intangible, heterogeneous, and inseparable from the person delivering them. They are also perishable and do not result in ownership. According to Kotler (1991), services are acts or performances offered by one party to another, with or without a physical product attached. Zeithaml et al. (2006) add that services are often intangible, transitory, and do not result in ownership.

QUALITY

Quality is a continuous process of improvement and is defined by customer perception. In higher education, quality is often assessed by how well the service meets or exceeds student expectations. According to Harvey and Knight (1996), quality in education is identified through consistency, fitness for purpose, and value for money. British Standard 4778 (1987) defines quality as "the totality of features and characteristics of a product or service that bear on its ability to satisfy a stated or implied need." Concept of quality, according to Deming (1998, p.137), is "Judgement of consumer on product or service produced by a business firm" and is "Conformity degree of a product to requirements" for Crosby (1979).

According to American Society for Quality (ASQC) "Quality is the totality of features and characteristics of aproduct or service that bear on its ability to satisfy stated or implied needs."

SERVICE QUALITY

Service quality is assessed by comparing customer expectations to actual performance. Lewis and Booms (1983) and Grönroos (1984) emphasize that service quality can be measured through functional and technical dimensions. Parasuraman, Zeithaml, and Berry (1985) developed the SERVQUAL model, which compares customer expectations and perceptions to measure the gap in service delivery. Service quality described by Sekerkaya (1997, p.14) as "A measure of realization level of service by customer's expectations". Howsoever difficult to define service quality due to various reasons such as quality is defined by customer not by producer and service quality which has failed to satisfy customers' expectations is condemned not only to lose existing customers but also to fail to gain new customers (Stanton, Etzel and Walker, 1997, p.524).

SERVICE QUALITY AND DISTANCE EDUCATION

In Distance Education Quality is defined as an evaluation process that "judges, measures, or assesses the quality of the development and delivery of online courses/learning environments focused on appropriate design and best practice, and is aimed at self-improvement ensuring quality instruction in a non-threatening way" (Quilter and Weber, 2004; Chapman and Henderson, 2010). In Distance Education quality is a complex and multi-faceted issue. There are general quality principles that can apply both conventional learning and Distance education; however, Distance Education has unique characteristics such as asynchronous interactions and open access to resources (Jung, 2011). Quality in Distance Education can have different meanings for institutions and researchers. Institutions may be more concerned about quality of their management and researchers may be more interested in the nature, depth and extent of the learning (Jung and Latchem, 2007). Martinez-Argülles, Callejo, and Farrero (2013) described the services quality of Distance Education as training, facilitating and administrative services, support services, and user interface dimensions. The research by Uppal Gulliver, and Ali (2018) identifies several key dimensions, including assurance, reliability, empathy, sensitivity, concrete features, and learning contents.

SERVQUAL

The SERVQUAL model is widely used to assess service quality by identifying gaps between customer expectations and perceptions. The five gaps in service delivery include:

Gap 1: Between customer expectations and management perceptions.
Gap 2: Between management perceptions and service quality specifications.
Gap 3: Between service specifications and actual delivery.
Gap 4: Between service delivery and external communications.
Gap 5: Between customer perceptions and expectations.

The five SERVQUAL dimensions—reliability, responsiveness, assurance, empathy, and tangibles—are commonly used to evaluate customer perceptions of service quality.

MEASURING SERVICE QUALITY

From a theoretical standpoint, there is no universal definition of quality - it may be defined as the conformance of a requirement, being fit to use (Parasuraman, Zeithaml, & Berry, 1985; Zeithaml, 1988).). Quality service is defined as the customers' perceptions of service performance that meets or exceeds their expectations of what the service organization provides. Thus, the service quality is to fulfil customer expectations (Pariseau & McDaniel, 1997).

Various tools exist for assessing service quality, but this study utilizes SERVQUAL to measure the quality of the MBA distance education program at Pondicherry University. Numerous studies have employed SERVQUAL to evaluate educational institutions, with findings often revealing gaps between student expectations and perceptions.

CONCEPTUAL MODEL OF SERVICE QUALITY – GAP ANALYSIS

The SERVQUAL model is developed by Parasuraman, Zeithaml and Berry (1985, pp. 48-49). This model compares expected service with perceived service. If the perceived service falls short of expectations, service quality is deemed unsatisfactory. If the perceived service exceeds expectations, the quality is considered highly satisfactory.

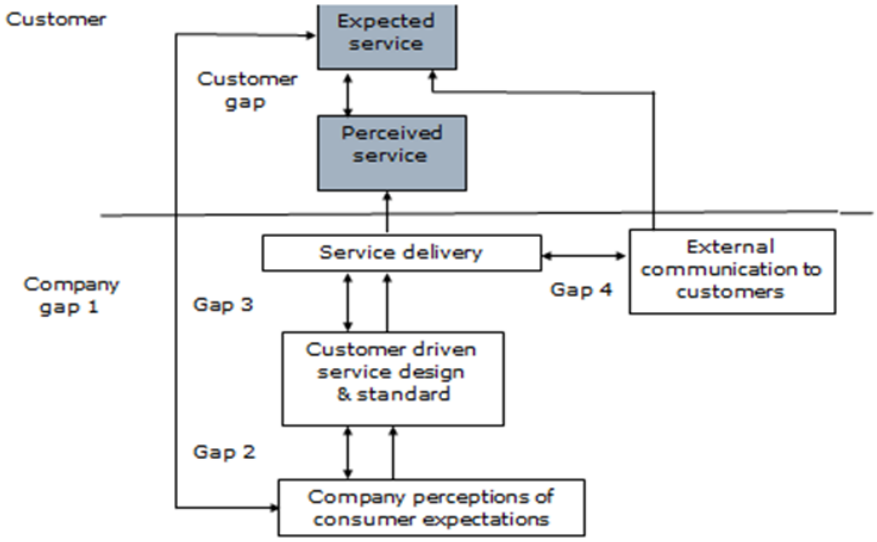


FIGURE 1. CONCEPTUAL MODEL OF SERVICE QUALITY

METHODOLOGY

SERVQUAL is used to analyze gaps in service quality by comparing student expectations and perceptions. The study surveyed 405 MBA students, using a 5-point Likert scale to assess 22 variables representing the five SERVQUAL dimensions.

DATA COLLECTION AND ANALYSIS

In order to measure the service quality of DE programs, the DE-SERVQUAL scale compatible with the features of DE was used. The data were collected from nine universities that had DE programs in 2023-2024 academic year in Pondicherry University, India.

The survey contained 22 statements designed to evaluate student expectations and perceptions of service quality across the five SERVQUAL dimensions. Students were asked to rate each statement on a 5-point scale, with the results revealing gaps between expectations and actual service delivery.

RELIABILITY ANALYSIS

To carry out the reliability test of the research Cronback alpha test has been carried out and in all four parameters such as Tangible feature, Responsive feature, Assurance feature and Empathy features the result was found highly satisfactory. In one feature i.e. Tangible feature the result was found satisfactory. The output of the Cronback alpha test is provided in Table.1.

TABLE 1: RELIABILITY TEST

TOTAL SCALE	EXPECTATION	PERCEPTION	SATISFACTION LEVEL
Cronbach's alpha(α)			
Tangible Features	0.807	0.811	Highly satisfied
Reliability Features	0.815	0.815	Satisfied
Responsiveness Features	0.888	0.889	Highly satisfied
Assurance Features	0.881	0.883	Highly satisfied
Empathy Features	0.847	0.853	Highly satisfied

In social researches, alpha value of 0,70 is accepted as adequate for reliability (Nakip,2006, p.146). For in this study reliability values of scales and sub-dimensions are at acceptable levels, t-tests, variation and SERVQUAL analyses were proceeded for testing research hypotheses.

DEMOGRAPHIC ANALYSIS

Demographic information help grasping population composition to identifying trends, policy planning, business planning, formulating strategy provides valuable insights into social phenomena, inequalities, and cultural shifts. It helps us understand the structure of a population in terms of age, gender, ethnicity, education levels, income, and other characteristics. Out of total 405 participants 49.4% are female and 51. % are male. Similarly, 40.5% are urban and 59.5% are rural.

TABLE 2

GENDER OF RESPONDENT				AREA OF RESPONDENTS		
		Frequency	Percent (%)		Frequency	Percent (%)
Valid	Male	205	50.6	Rural	241	59.5
	Female	200	49.4	Urban	164	40.5
	Total	405	100.0	Total	405	100.0

PIE CHART 1.

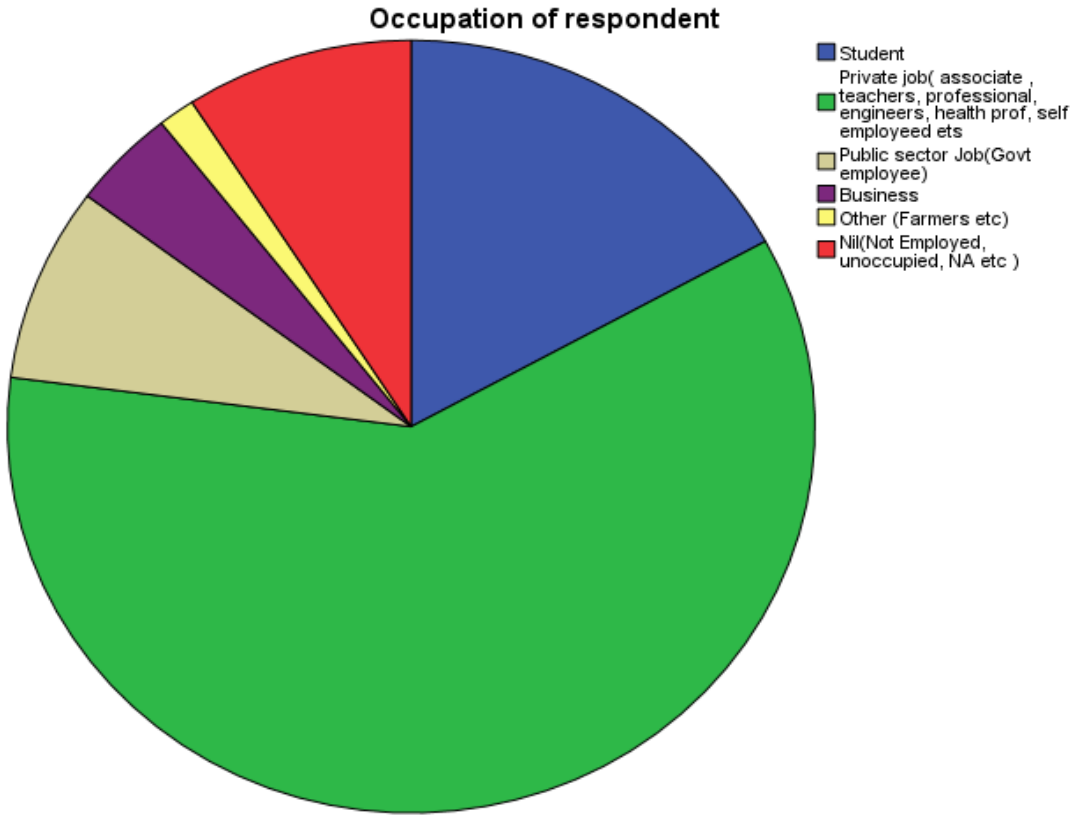


TABLE 2a

OCCUPATION OF RESPONDENT			
		Frequency	%
Valid	**Student**	69	17.0
	Private job (Associate, Teachers, Professional, Engineers, Health prof, Self-employed etc.	243	60.0
	Public Sector Job (Govt employee)	33	8.1
	Business	17	4.2
	Other (Farmers etc)	6	1.5
	Nil (Not Employed/Unoccupied, NA etc.)	37	9.1
	Total	405	100.0

Out of 405 Respondents Occupational distribution of our service quality measurement study shows 69(17%) are current students, a vast majority around 243(60%) are working in private sector, 33% working in government sector, 4.2% have own business, 9.1% is unemployed and only 1.5% are working as farmer.

ANALYSIS OF SERVQUAL SCORES ACROSS DEMOGRAPHIC SEGMENTS

In order to assess whether or not expectation level of respondents differed based on their demographic features such as gender and area of residence T-test were conducted.

TABLE 3. SERVQUAL SCORES ACROSS DEMOGRAPHIC SEGMENTS (GENDER)

GROUP STATISTICS							
	Gender	N	Mean	Std. Deviation	Std. Error Mean	T	P (Sig)
Tangible feature	Male	205	3.9902	.83426	.05827	-.183	.57
	Female	200	4.0050	.78617	.05559		
Empathy feature	Male	205	3.5073	.97327	.06798	.026	.033*
	Female	200	3.5050	.81443	.05759		
Reliability feature	Male	205	3.6634	.89600	.06258	-.082	.012*
	Female	200	3.6700	.71671	.05068		
Responsiveness	Male	205	3.2927	1.09464	.07645	-1.348	.165
	Female	200	3.4300	.94847	.06707		
Assurance	Male	205	3.8488	.75509	.05274	1.040	.784
	Female	200	3.7750	.66829	.04726		
SERVQUAL score	Male	205	3.6605	.76559	.05347	-.236	.062
	Female	200	3.6770	.63710	.04505.		

An independent sample t test was conducted to test the hypothesis that the level of SERVQUAL expectations between male and female group differ significantly or not. The group statistic shows almost no difference of mean value for men (M=3.660, SD=.76559) while for female (M=3.6770, SD= .63710). As levene's test of equality of variance says that if F-significance vale is greater than 0.05 than take value of "equal variance assumed" otherwise take vale of "equal variance not assumed" hence we can say Overall SERVQUAL scores does not differ significantly at 5% level of significance by gender. While, service quality score differs at sub-categories of reliability and empathy features, in other word the level of satisfaction of female respondents are higher than male in term of reliability and empathy category.

TABLE 4: SERVQUAL SCORES ACROSS DEMOGRAPHIC SEGMENTS (DOMICILE)

GROUP STATISTICS							
	Area	N	Mean	Std. Deviation	Std. Error Mean	t	P(Sig)
Tangible feature	Rural	241	3.9378	.87575	.05641	-1.805	.055*
	Urban	164	4.0854	.69532	.05430		
Empathy feature	Rural	241	3.5228	.90858	.05853	.452	.676
	Urban	164	3.4817	.88250	.06891	.455	
Reliability feature	Rural	241	3.6805	.84754	.05459	.415	.349
	Urban	164	3.6463	.75733	.05914	.424	
Responsiveness	Rural	241	3.2988	1.04181	.06711	-1.470	.680
	Urban	164	3.4512	.99880	.07799	-1.482	
Assurance	Rural	241	3.7925	.75726	.04878	-.677	.066
	Urban	164	3.8415	.64531	.05039	-.698	
SERVQUAL	Rural	241	3.6465	.73835	.04756	-.768	.198
	Urban	164	3.7012	.65175	.05089	-.786	

An independent sample t test was conducted to test the hypothesis that the level of SERVQUAL expectations between rural and urban domicile of the respondents. Overall SERVQUAL scores do not differ significantly at 5% level of significance by Domicile of respondents. While, service quality score differs very slightly at sub-categories of tangibility, in other word the level of satisfaction between rural and urban respondents does not differ significantly as a whole or in sub category.

ANALYSIS OF GENERAL SERVQUAL SCORES AND ITS ASSESSMENT:

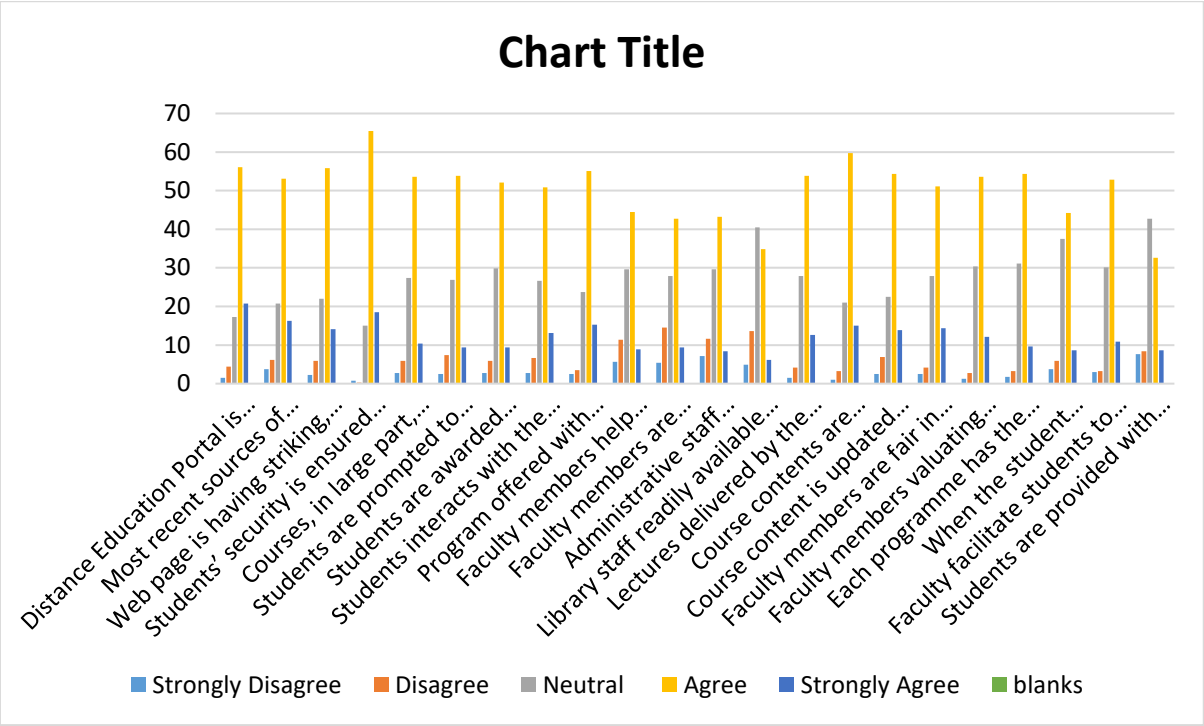
TABLE 5: GENERAL SERVQUAL SCORES

		PERCEPTION			EXPECTATION		DISCREPANCIES OF AVERAGES	SUM OF FACTOR GAP	FACTOR GAP AVERAGES
Dimension	Statement	Number	Average	Std.Deviation	Average	Std. Deviation	Perception (-) Expectation		Total Gap./k
Tangibles	1	405	3.901	.827	3.82	.809	0.081	0.325	.08125
	2	405	3.721	.935	3.63		0.091		
	3	405	3.736	.854	3.65		0.086		
	4	405	4.007	.643	3.94		0.067		
Reliability	5	405	3.630	.851	3.55	.811	0.08	0.419	0.0838
	6	405	3.602	.852	3.52		0.082		
	7	405	3.595	.844	3.51		0.085		
	8	405	3.649	.887	3.56		0.089		
	9	405	3.773	.837	3.69		0.083		
Responsiveness	10	405	3.395	.994	3.30	1.026	0.095	0.383	.09575
	11	405	3.360	1.019	3.26		0.1		
	12	405	3.341	1.028	3.24		0.101		
	13	405	3.237	.935	3.15		0.087		
Assurance	14	405	3.719	.793	3.64	.716	0.079	0.478	0.0804
	15	405	3.847	.745	3.77		0.077		
	16	405	3.701	.880	3.62		0.081		
	17	405	3.706	.853	3.62		0.086		
	18	405	3.726	.755	3.65		0.076		
	19	405	3.669	.764	3.59		0.079		
Empathy	20	405	3.481	.875	3.40	.897	0.081	0.267	0.089
	21	405	3.654	.829	3.57		0.084		
	22	405	3.262	.998	3.16		0.102		
					SUM				0.4302
					SUM/5=SERVQUAL SCORE				0.0860

* k: Number of statements composing dimension

The above descriptives indicate that the respondents are satisfied with the service quality of the department of distance education of the university from which they received distance education. Furthermore, the above descriptives demonstrate that SERVQUAL scores for the five service quality dimensions such as, tangibles, reliability, responsiveness, assurance, and empathy are cumulative. Additionally, customer expectations were largely met across almost all of these dimensions. This can be further explained by the following SERVQUAL score chart. Where respondents' happiness level and dimensions where they were found critical to service is displayed.

FIVE SCALE FREQUENCY CHART 1



RESEARCH FINDINGS

Out of 405 respondents in this sample 49.4 % are adult female and 51.6 % male students have been enrolled in the MBA programme during Academic Year 2023-24. They have considerable experience with distance learning services at this institution. The sample is also a good representation of the overall student population at this institution in terms of gender, domicile and experience with institutional services.

The study found Overall 63% of respondents are happy with the service quality including 12% highly satisfied and 28% have rated the service as neutral while only 3% were highly dissatisfied and 6% found themselves downcast with SERVQUAL.

Overall SERVQUAL scores does not differ significantly at 5% level of significance by gender. While, service quality score differs at sub-categories of reliability and empathy features, in other word the level of satisfaction of female respondents are higher than male in term of reliability and empathy category.

Overall SERVQUAL scores does not differ significantly at 5% level of significance by Area of respondents. While, service quality score differs very slightly at sub-categories of tangibility, in other word the level of satisfaction between rural and urban respondents does not differ significantly as a whole or in sub category.

From this research it was found that overall the respondents are satisfied with the service quality of the Directorate of Distance Education of the university from which they received distance education. Furthermore, the SERVQUAL scores for the five service quality dimensions such as, tangibles, reliability, responsiveness, assurance, and empathy are cumulative. Additionally, student expectations were largely met across almost all of these dimensions. However, we also found respondents happiness level and dimensions where they were found critical to service is displayed, suggesting the need for improvements in service delivery to meet student expectations.

IMPLICATIONS OF SERVQUAL IN DISTANCE EDUCATION

The SERVQUAL model, used for assessing service quality, has important implication on distance education. It helps in identifying gaps between student's expectations and perceptions, allowing institutions to enhance service quality. By focusing on dimensions like reliability and responsiveness, educators can tailor offerings to better meet student needs, boost engagement, and improve faculty training. Leveraging SERVQUAL insights can also aid in benchmarking against competitors and guiding strategic decisions, ultimately enhancing reputation and competitive advantage in the online education market. Overall, applying SERVQUAL can lead to improved student satisfaction and success.

CONCLUSION AND SUGGESTIONS

This study highlights the importance of understanding and addressing the gaps between student expectations and the actual service provided in distance education programs. In this study although it was found that student expectations were largely met across almost all of these dimensions. However, there are few areas identified through SERVQUAL, which needs to be addressed by Pondicherry University and the overall student experience and satisfaction levels can be increased.

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PAPER – 08

THE IMPACT OF THE RECENT ADOPTION OF FOREIGN EDUCATIONAL PRACTICES ON TEACHER TRAINING PROGRAMMES IN INDIA-A QUALITATIVE STUDY

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The professional preparation of teachers has been recognised to be crucial for the qualitative improvement of education since the 1960s (Kothari Commission, 1964-66), but very few concrete steps have been taken in the last three decades to operationalise this.
- From Executive Summary, Position Paper. National Focus Group on Teacher Education for Curriculum Renewal

INTRODUCTION

THE EDUCATIONAL SCENARIO POST INDIAN INDEPENDENCE

The extract from a book published at the turn of the millennium, cited at the beginning of this paper is a clear evidence of a felt need among educators in India. Since Independence, in tune with practices of the Commonwealth of Nations, India had been closely emulating educational and financial reforms that have flourished in Great Britain. However each successive governments that came to power following Indian Independence from British rule in 1947, had made an attempt to improve the quality of teachers in schools.

THE POLITICAL SCENARIO POST INDIAN INDEPENDENCE

From a political perspective, in the early years of Indian independence, with a view to getting a firm grip on the world stage, the governments that came to power after Independence followed a policy of Non-Alignment. There was no attempt to associate with any leading power blocks led by the United States and NATO on one side and the USSR (Soviet Union) and a group of countries on the other. Then, association with the Commonwealth of Nations led by Great Britain, was seen more as a platform for cultural exchange including cooperation in the fields of Education, trade and commerce.

However, the decades to follow saw the breakup of the Soviet Union and the rise of China as a competitor with the United States on the world stage. Great Britain had lost its position as a power to be reckoned with and many members of the Commonwealth began to establish political connections with other European nations and the oil rich countries in the Middle East. But by then, religion-based political struggles had continued in different countries and in India, since the new millennium, a shift in policy could be perceived.

WHEN POLITICAL IDEOLOGIES AND EDUCATIONAL POLICIES MERGE

For over three centuries, India had been at the receiving end, groaning under the yoke of rule by a foreign country which drained its resources and made it poverty-ridden. But thanks to the visionary leadership of changing governments represented by different political parties, India has risen slowly from the ashes and very recently landed a Rover on the moon. At the very foundation of such progress was the realization that the key player in a country's success is the strides it makes in educating its citizens.

With the threat of a war with the neighbours Pakistan on the one side and recent skirmishes along the Chinese border, a complete change in policy became imperative. At the political front, India openly befriended the United States which itself was facing threats from Islamic terrorists. It was also reflected in several Indian governmental policies which matched US internal policies.

BACKGROUND TO THE STUDY

Of late, for two consecutive five year terms, the elected government in India had been exploring policies and reforms that pay better dividends for the investment they make in key sectors like Education. So in the last decade, a significant shift was perceived in the adoption of policies and systems resembling that of the United States rather than of Great Britain. In fact, the present government which was voted to power in 2024, since its inception had been striving to implement the National Education Policy which they finalized in 2020.

An explicit change perceived was in the area of teacher education where a new Integrated Teacher Education Programme (ITEP) was abruptly introduced. This is akin to the practice in the United States. In the traditional system, for secondary teacher training in India, aspirants used to join the two-year Bachelor of Education programme after obtaining an undergraduate degree in Arts, Science or Commerce. But in the new integrated programme, teacher aspirants are directed to join the secondary teacher training programme after their Higher Secondary level. A recent post of Times Higher Education had a write-up on the Best Universities in the US for Education degrees 2024. It provided details of the education degree offered by several universities. The University of Michigan Ann-Arbor, for instance, offers two bachelor's degrees in education covering elementary or secondary education. The three-term-long secondary programme begins in a student's junior year (that is, third year), allowing the student to graduate both with an undergraduate degree and a secondary teacher certification. This is akin to the four-year Integrated Teacher Education Programme introduced in India, where for a BSc BEd programme, a student can specialize in a Major and in the fourth year, study papers on Education, engage in classes during Practice Teaching, and become eligible to teach at the Secondary level. An interesting similarity is also noted in the schooling system of the US and that of the newly introduced pattern in India. For instance, a comparison of the educational system in Britain and the United States (2024) specifies that the US system is typically divided into three levels: basic elementary school (K - Grade 5), middle school (Grades 6-8), and high school (Grades 9–12) (Education in the UK vs US: Full Comparison, 2024). A similar change was introduced in the National Education Policy with the adoption of the 5+3+3+4 system, referring to the Foundation stage (Pre-school and Class 1&2), Preparatory stage (Classes 3 to 5), Middle stage (Classes 6 to 8), and Secondary stage (Classes 9 to 12).

ON EFFORTS AT CURRICULAR REFORMS IN TEACHER EDUCATION IN INDIA

The National Council for Teacher Education (NCTE) as early as 2009 had published a comprehensive National Curriculum Framework for Teacher Education. With a view to improving the quality of teacher education programmes, a few years ago, the National Curriculum Framework for Teacher Education (NCFTE) (2009) proposed a change in the qualification of teachers teaching at the elementary level. Then, the Plus Two qualification for teaching at the elementary level was perceived as insufficient, and a Bachelor's degree was proposed as the basic qualification. This was based on the observation that:

> *"The plus two entry level does not equip prospective teachers with basic knowledge of the subjects to teach at the elementary level, particularly classes 3 to 8. Neither does the short duration of the course equip them with the necessary pedagogic knowledge and professional repertoire for understanding children's psycho-social needs and facilitating their learning" (p.8).*

Recently, the National Education Policy (NEP) (2020) spelled out the significance of Teacher Education: under the best mentors, trainees are expected to acquire multidisciplinary perspectives and knowledge and to form appropriate dispositions and values (15.1. Teacher Education, p.43). Following the guidelines of the NCFTE and NEP, the four-year Integrated Teacher Education Programme (ITEP) was launched during the academic year 2023-2024. Singh for News on AIR reported the launch of ITEP in 57 reputed Teacher Education Institutions (TEIs) coming under central and state governments from the academic session 2023-24 throughout the country. The four-year dual-major holistic undergraduate degree will include three courses: B.A. B.Ed., B.Sc. B.Ed., and B.Com. B.Ed. The course aims to prepare teachers for the four stages of the new school structure—Foundational, Preparatory, Middle, and Secondary—aligned with the 5+3+3+4 system. Further, the Curriculum Framework for ITEP specifically stated that ITEP seeks to ensure that the prospective teachers are given the highest quality education in content, pedagogy, values, and practice. (p7)

PREPARATIONS PRIOR TO THE LAUNCH OF ITEP

Discussion, deliberations and planning had commenced in the country as early as 2019 for the launch of the new four year Integrated Teacher Education Programme (ITEP). For instance, a workshop for the presparation of a Handbook for implementing ITEP was organized by the Inter-University Centre for Teacher Education (IUCTE) functioning in RIE, Mysore. The participants of the workshop had identified Internship and Evaluation of ITEP under 'areas which is likely to lead to issues and challenges'.(Report, RIE, Mysore). All such concerns were expected to be taken into account in the stage specific ITEP launched recently-Foundational Stage, Preparatory Stage, Middle Stage and Secondary Stage. In fact, the Curriculum Framework of ITEP states:

> *"The ITEP seeks to create a pool of competent teachers capable of designing developmentally appropriate teaching-learning-assessment practices that are responsive to the learning needs and interests of children at different stages of their development."(p8)*

THE PROBLEM

The investigator, a teacher educator by profession, had for two decades taught and assessed performance of student teachers at the Bachelor of Education (BEd) and Master of Education (MEd) level. Then, the investigator noticed that a vast majority of participants of the courses who possessed a higher qualification for the course they are pursuing tended to perform better during class room discussion of theory sessions and in their practical sessions. In the recently launched ITEP, students join the course after completing Plus Two and are in the age group 18-20. But for the earlier two year BEd programme, students used to join the course after completing a three year university degree programme and would usually be in the age group 21-23. What is also to be noted is that during the ITEP programme, the student teachers study their respective subjects such as Mathematics, Physics, Chemistry, Botany and Zoology (for the BScBEd) programme matching university Under Graduate programme syllabuses. They also receive inputs on Pedagogic Content Knowledge (PCK) and during the final phases of the ITEP of the Secondary Level, they engage classes in Standard IX, X, XI and XII. (Curriculum Framework ITEP p.20)

The investigator had during his career as a teacher educator, observed classes engaged by trainees who possess a PG degree and UG degree in their concerned subjects pursuing the BEd course. Then the investigator found that those students who already possessed a PG degree in their respective subjects displaying a higher level of subject knowledge competence compared to those who possessed only an Under Graduate degree in their respective subject. Further, it was also found that those trainees who possessed a PG degree performed well during Practice Teaching. But in the newly launched ITEP, student teachers who have only completed their Plus Two are being trained to engage classes at the Secondary level during Internship. This then is likely to create problems related to lowering of trainee performance, particularly with reference to their subject knowledge competence.

RESEARCH QUESTIONS

An identification of problems likely to arise from the apparent difference in subject knowledge competence of those with a PG degree and those undertaking Internship while learning the very subject during the ITEP was the main objective of the study. Problems related to assimilation and accommodation of newly acquired knowledge for retrieval and use during Internship was also considered. So the following research questions were framed:

1. Will the failure to properly assimilate content knowledge before exploring pedagogic strategies for transacting the same/ similar content in school during Internship affect student teacher performance?
2. Will student teachers who learn content knowledge and simultaneously receive inputs on Pedagogic Content Knowledge, find it a burden which can affect own performance during Internship?
3. What can be done to overcome problems likely to arise in student teacher performance during Internship particularly among those who lack an in-depth subject content knowledge competence?

METHODOLOGY

The Integrated Teacher Education Curriculum Framework was published as a print and e-book by the National Council for Teacher Education—a statutory body responsible for overseeing teacher education programmes in India. This publication was freely accessible for download from their official website, particularly by institutions interested in launching the new Integrated Teacher Education Programme (ITEP). The investigator, drawing on twenty years of experience as a teacher educator and involvement as a subject expert of the BEd curricular revisions of the University of Kerala, conducted a detailed, close reading of this official document.

The official curriculum document of ITEP, which inherently carries a static and authoritative nature were analysed and five significant gaps have been identified. To substantiate the critique beyond mere assertion, the investigator referenced existing research in the fields of teaching, learning, and teacher education—published in reputable journals and books by international experts. By engaging with this body of established knowledge, the investigator carefully examined and exposed flaws within the curriculum framework through rigorous, analytic reading of the published document.

It is important to recognize that qualitative research encompasses a broad range of non-numerical data types that enable researchers to explore complex phenomena such as human behaviour, attitudes, and beliefs. Common sources of qualitative data include interviews, observations, case studies, online data, and document analysis of public records, reports, and scholarly articles. In this study, the investigator relied on qualitative data to identify the core issues and to formulate research questions rooted in qualitative inquiry. Additionally, the investigator attempted to gather qualitative insights from institutions that implemented the new course, further supporting the qualitative nature of the study. Even the suggestions for future research are articulated in qualitative terms, emphasizing the interpretive and exploratory focus of the study. Consequently, the study is characterized as empirical, analytical and qualitative—focused on an in-depth examination of an existing document.

The study commences with a review of the background and documents related to the launch of the ITEP during 2023-24 and collection of data from institutes offering ITEP. This is followed by a review of literature related to teaching in general and teacher education in particular. The review will focus specially on the acquisition of content knowledge and pedagogic content knowledge and areas to be focused on during actual teaching. Next, with reference to the Curriculum Framework of ITEP and the investigator's own experience, the problems likely to crop up during Internship will be listed, and concludes with suggestions and solutions for addressing the issues/ problems likely to arise in transaction of content knowledge of ITEP.

BRIEF REVIEW OF STUDIES

Several researchers have studied the 'expected skills' for teaching. Cochran, King & De Ruiter (1991) for instance, affirmed that, teachers need to understand subject matter knowledge in order to carry out good teaching and enhance student understanding. And according to Hasweh (1987) teachers with more subject matter knowledge are capable of reorganizing material in the textbook to match with their own understanding and spot misleading or poorly articulated themes. Moreover, such teachers are sensitive to students' misconceptions.

Shulman whose name is associated with Pedagogic Content Knowledge, gave great priority to the very process of teaching and had expected teachers to possess certain essential knowledge bases. These include content knowledge, general pedagogical knowledge, curriculum knowledge, Pedagogic Content Knowledge (PCK), knowledge of learners and their characteristics, knowledge of educational context and knowledge of educational ends, purposes, and values, and their philosophical and historical grounds. (Shulman, 1987)

Studies (Long & Prat 2002; Reder et al., 2007) on adaptive learning system, affirm that, existing memories can enhance or impair new learning. Bein et al. (2019) attempted a study of learning through association to find whether such learning is different from adding new information to already existing knowledge. They found that associative learning is flexible and directional, is specific to memory systems and highly dependent on prior knowledge.

DISCUSSION AND FINDINGS

The Curricular and Pedagogical Principles guiding ITEP are listed in the Curriculum Framework of ITEP. Those which have a reference to the current study are listed below and critiqued with reference to related studies:

I. Student teachers have to:

> *"… to design/create developmentally appropriate learning experiences for children and learn how to teach students at a particular stage of school education ;"(p13)*

As per Piaget's theory, there are two kinds of adaptation process of the individual to the environment namely assimilation and accommodation. The process of accommodation, according to Piaget's theory, involves altering one's existing ideas (schemas) about how the world operates in response to new information and experiences. Nickerson in her post in 'Simply Psychology', provides an explanation of the process with appropriate illustrations. In the new Integrated Teacher Education Programme, the student teachers learn the subject of their choice (Mathematics, Physics, Chemistry, Botany, Zoology etc. for the BSc BEd course) which involves assimilation and insertion of new stimulus into the existing scheme. But accommodation we know necessitates adjusting of the scheme and building of new scheme based on the existing scheme. But these very students have to identify ways of transacting same or related content in meaningful ways to learners in schools during Internship. This would again involve assimilation of content interspersed with pedagogical knowledge provided by the teacher educator or gained from audio visual resources to the existing cognitive structure. In fact, the student teachers have to create a new thinking structure related to their Pedagogical Content Knowledge which needs to be constructed correctly. This implies that any failure to properly assimilate the content learned in the classroom prior to Internship can affect student teacher performance.

II. The Curriculum Framework of ITEP also states:

> *"Ensure that all student-teachers gain command of contents and pedagogy of subject areas relating to curricular areas prescribed for study at a particular stage of school education…"(p13)*

Brant of the Institute of Education, London, in his discussion of good teaching affirmed the significance of getting beginning teachers to change their ways of thinking about teaching and learning as their own current thinking will have many limitations. So Brant opines that teacher educators should strive to get beginning teachers to see the lesson from the point of view of pupils' learning outcomes. Further, during teaching, the student teacher is expected to transform the content knowledge into forms that are pedagogically powerful and adaptive for varying student abilities and backgrounds. To Shulman, this involves five sub processes: preparation, representation, instructional selections, adaptation and tailoring of instructions. According to Shulman (1987) Preparation involves examining and critically interpreting resources that will be used in the lesson in terms of

teachers' own understanding of the subject matter. Representation involves thinking through the key ideas of the lesson and identifying alternative ways of representing them to students. This includes analogies, metaphors, examples, narratives, and simulations that can help to build a bridge between the teacher's comprehension and that desired for the students. Instructional selection occurs when teachers draw upon a range of approaches for teaching and learning, such as Socratic dialogue, discovery learning, project methods, and learning outside classroom settings. Adaptation is the process of fitting the represented material to the characteristics of the students so as to reflect their learning styles. Tailoring of instruction entails fitting representations not only to individual students but also to groups of particular size, disposition, receptivity, and interpersonal chemistry.

This then implies that student teachers of ITEP preparing for Internship need to be given necessary assistance particularly with reference to PCK. And during the content knowledge acquisition phase, continuous assessment and feedback from the teacher educator becomes imperative.

III. The Curriculum Framework also mentions:

> *"Meaningful integration of theory with continuous, guided, and graded practice to develop an understanding that teaching is not a mere application of theories generated by different disciplines and that an effective teacher needs to make educational judgments based on the perspectives gained through engagement with different disciplinary/interdisciplinary areas of study."(p14)*

Kulgemeyer et al. (2020) studied 47 pre-service Physics teachers from four different universities. They were tested for their content knowledge (CK), PCK, pedagogical knowledge (PK), and action-related skills in explaining Physics. The results of the study was that for field experiences to be effective, pre-service teachers should start with profound professional knowledge. Studies have shown the effect of age on learning. For instance Gomez-Perez & Ostrosky-Solis (2016) found that student's memories and attention spans develop with age. This implies that older students have greater attention spans and greater memory capacity than younger students.

Considering the age and experience of student-teachers of ITEP, when they engage with different disciplinary/ interdisciplinary areas of study, they are likely to face certain challenges. Perhaps through a profuse use of multimedia resources for content transaction and by consciously sensitizing student teachers with ways in which theory can be effectively employed in practical classroom situations, the teacher educator can help student teachers overcome likely challenges.

IV. The secondary stage of education is designed in two phases – Grades 9 and 10, and Grades 11 and 12. Each phase of secondary education has its own focus and student-teachers choosing secondary Stage Specialization are required to demonstrate attributes that are specific to teaching in Grades 9 & 10 and Grades 11 & 12 in addition to the attributes that are common across the two phases of Secondary education. (p20)

Meaning construction by students involve connecting new knowledge with previously known concepts.(NRC,2000) According to Kober (2015) instructors should always keep in mind that students often possess less developed or incomplete conceptual frameworks. That is to say, 'chunking knowledge' and interconnecting ideas may take time. To Ambrose et al. (2010) the possibility of erroneous ways of thinking or misconceptions can weaken connections with new knowledge. Kaasila et al. (2014) pointed out that to gain a new experience, modification of existing knowledge or cognitive structures through accommodation is to take place. This then implies that teacher educators should keep track of student teacher performance vis-a-vis acquisition of attributes for different levels. Here, individual differences should be effectively addressed and special attention should be given for those student teachers who experience difficulties in their studies.

V. The attributes expected to be demonstrated by student-teachers on completion of ITEP with Secondary Stage Specialization (Grades 11 & 12) include:

> *"… Procedural knowledge required by student-teachers to perform and accomplish the professional tasks associated with teaching students in Grades 11 & 12, and to adopt effective pedagogical approaches to curriculum transaction that would facilitate the achievement by children of the expected learning outcomes and competencies on completion of the Secondary Stage of education." (p21)*

When new content is presented to the learner particularly in professional courses, knowledge retention is imperative for learning and also for efficient and effective training. For this, student willingness to learn, and the teacher's ability to present content in meaningful and logical ways enabling the learner to link the material with previous knowledge is absolutely essential. A study conducted on health professionals in Mozambique found that the use of audio-visual resources aid assimilation and retention of knowledge. (Ferreira et al., 2016) And the UNESCO document on 'Learning to be' made a specific reference to the principle of 'self-learning'. The document affirms that the master and creator of own cultural progress in the new educational ethos, is the individual himself. More importantly, 'Learning to learn' is not a mere slogan, but a pedagogic approach teachers must themselves master to pass on to others.(p 209) These then imply that teacher educators of the new ITEP should not only be a scaffolder but also ensure that student teachers develop the ability for 'self-learning' and does not become over dependent on the teacher educator.

ON ITEP COURSES RUN IN DIFFERENT INSTITUTIONS

*Data collected by the investigator from institutes offering ITEP for the first time, particularly in national institutes like the Indian Institute of Technology and National Institute of Technology in different states, revealed an aspect unseen by those who proposed ITEP. Incidentally, the decision to launch ITEP in institutes of national importance was with the objective of enabling prospective teachers to receive high quality input from the faculty in the institutes of national importance. But it was found that many students joined for ITEP in such institutes because they could secure an Under Graduate (UG) degree after three years and exit utilizing the provision for discontinuing in the dual degree programme of ITEP. After all, a degree in Mathematics, Physics or Chemistry from a reputed national institute is far superior to a degree from a State University or an ordinary college. And more significantly, such an UG degree would turn out to be a passport to a successful entry into another national institute with provision to pursue research in their concerned subject of study. In short, such a practice indirectly defeats the very purpose of offering an Education related degree of ITEP in an institute of national importance!

*Inquiries by the investigator also revealed that variation existed in the design of syllabus of ITEP in different institutions. For instance, Micro Teaching which is perceived as essential in mastering teaching skills do not find mention in the suggested ITEP curriculum of NCTE. Further, of late Techno Pedagogical Content Knowledge Analysis (TPACK) is given prime thrust in the two-year BEd programme offered in many universities. But TPACK does not find mention in the suggested curriculum of ITEP prepared by NCTE. Naturally, both Micro Teaching and TPACK are not given attention in the syllabuses of ITEP offered by different institutions.

SUGGESTIONS PROPOSED

The study has highlighted certain issues in the newly launched ITEP. Though no comprehensive answers have been provided, the study underscores the need for teacher educators and trainees to engage in proper planning and reflection. In addition, familiarization with several pedagogical strategies are absolutely essential for a smooth transmission of recently acquired content knowledge to learners in the school classroom during Internship. Perhaps, regular viewing and group critiquing of pedagogic strategies in the presence of the teacher educator using video recordings of actual teaching in classrooms particularly in schools in rural, tribal, semi-urban and urban settings for learners who possess different learning styles may be made mandatory. In addition, a resource bank of teaching resources for subjects may be maintained in institutions providing the Integrated Teacher Education Programme. Such resources could include well written lesson plans, images both print and digital, audios, videos and film clips based on the lessons prescribed for study at the secondary and higher secondary level. And particularly during Internship, when the trainees are away, attached to practice teaching schools, the supervising teachers and teacher educators should take the initiative to supply essential teaching aids instead of expecting trainees to find appropriate teaching aids on their own.

In the new ITEP, content knowledge acquisition is immediately followed by triggering of the process of accommodation of Pedagogical Content Knowledge prior to Internship. Here, a student teacher is expected to internalize properly the ideas learned and not become a victim of rote learning. Further, the student teachers are ones who are expected to question, explore and engage with the ideas they encounter. Concluding his discussion on assimilation of ideas Reddy, observed that only by shifting our focus from rote memorization to the internalization and application of knowledge can we create a meaningful and purpose-driven educational experience for all. And this implies the necessity of embracing a lifelong learning mind-set. This is a kind of recognition of the fact that student teachers should not stop with what they learned in their class room, but be a continuous learner throughout life.

FURTHER RESEARCH

What is the time frame required for effectively transforming the content knowledge acquired into pedagogical content knowledge? Is PCK dependent on the practice gained through actual teaching only or through observation of classes and videos on teaching or by a study of illustrative Lesson Plans? Do prospective teachers automatically gain an ability to adapt to Online teaching when the situation arise or is special training essential? What exactly is the difference in impact on classroom teaching by teachers who possess only an Under Graduate degree and those who possess a Post Graduate degree in a given subject? How exactly will such knowledge affect teaching at the Higher Secondary level? These are questions for which answers are to be found. For this, further research in rural, tribal, semi urban and urban settings may be undertaken.

LIMITATIONS OF THE STUDY

Several institutes in India which launched ITEP are now in their second year of the four year programme. The most significant phase is the fourth year during which student teachers will be attached to schools for Practice Teaching. It is not known how different institutes currently offering ITEP will try to plug the loop holes identified in the paper in the discussion section. Only after the completion of the first batch of ITEP will we be able to get a clear picture of the merits and demerits of the course.

The conclusions drawn in the study are mostly based on the investigator's own experience of teaching at the BEd level in the state of Kerala during the last three decades. But the current generation of learners live in a media saturated and technological age where they have access to different types of knowledge at their fingertips. So the role of the teacher educator as a transmitter of knowledge is extremely limited. For student teachers particularly during Internship, acquisition of pedagogical content knowledge assumes significance. But the study has not looked into the strategies likely to be employed for transmission of PCK and the effectiveness of the same.

SUMMING UP

In this study certain lacunae and specific issues related to pedagogical statements in the curriculum of ITEP were identified by the investigator through a systematic, critical analysis of the published content. Incidentally, the abrupt shift to a new pattern of teacher education in India is still being reviewed by senior teacher educators and educationists across India. At this stage, that is, the second year of the programme, one cannot really predict the quality of the prospective teacher trainee who will be completing the course from different institutes in the country. More significantly, it is not known whether such products will be competent enough to meet the demands of an increasingly globalized world. Perhaps it would only be wiser on the part of developing countries keen on adopting foreign imported educational practices to think twice before adopting them with the hope of adroitly preparing a teaching work force for the future.

At any rate, the initiatives of the Government of India to improve the quality of instruction in colleges of Teacher Education are definitely praiseworthy. And it is only natural to face issues and challenges whenever a new programme is launched. But through proper monitoring and timely intervention, flaws identified if any can be rectified. It is hoped that this study has helped sensitize both teacher educators and institutional authorities to the need to gear up to address the issues and challenges likely to crop up during the four year ITEP. Perhaps it would only be appropriate to conclude this study on the new Integrated Teacher Education Programme, by quoting an ancient Sanskrit shloka on how we learn and grow:

आचार्यात् पादमादत्ते पादं शिष्यः स्वमेधया ।
सब्रह्मचारिभ्यः पादं पादं कालक्रमेण च ॥

A transliteration of the shloka reads:

AchAryAt pAdamAdatte, pAdam shiShyaH swamedhayA |
sa-brahmachAribhyaH pAdam, pAdam kAlakrameNa cha ||

It can be translated as follows:

One fourth from the teacher, one fourth from own intelligence,
One fourth from classmates, and one fourth only with time.

-Das in Speaking Tree

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PAPER – 09

BEYOND BORDERS: UNPACKING THE DREAMS OF NEPALI STUDENTS PLANNING TO STUDY IN AUSTRALIA

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INTRODUCTION

Students' mobility is a global phenomenon, and Nepal is not an exception (Tamang & Shrestha 2021). However, an alarming trend of Nepali students' foreign migration in the last few years has posed serious concerns for society and academia. Ghimire's study (2023) highlighted that the count of Nepali students pursuing higher education overseas, encompassing diploma and language courses, demonstrates a consistent annual rise. Ghimire (2023) reported for the University World News that 82000 Nepali students had obtained No Objection Certificate (NOC)s in the first nine months of the fiscal year 2022-23 when as many as 114, 000 students had acquired NOCs in the fiscal year 2021-22 and in the last 13 years the number was 416,364. The number was increased by 12.74 percent (MOEST, 2022).

Student's migration seeks growing attention in both origin and destination countries. The destination countries gain income on the one hand, and on the other hand, student's countries of origin loss their intellectual wealth (Jong & Fonseca, 2020) due to the increasing trend of student migrations.

Nepal, a country nestled in the Himalayas, has witnessed a growing trend of students pursuing higher education abroad, with Australia emerging as a popular destination (Shrestha & Dhakal, 2019). The decision to study abroad is influenced by various factors, including academic opportunities, career prospects, cultural exposure, familial expectations, and financial considerations. Nepal's education system faces challenges such as limited access to quality higher education institutions, inadequate infrastructure, and political instability (Bista & Pandey, 2018).

This study seeks to explore the dreams of Nepali students planning to study in Australia, aiming to shed light on the multifaceted factors driving their educational choices. By examining their aspirations, expectations, and perceived challenges, we aim to contribute to the existing body of knowledge on international student mobility and cross-cultural education.

1.2 Statement of the Problems

With an unstable economy, uncertain future, and lack of employment opportunities, many Nepali youths are trying to go abroad during their college years with the expectation of permanently settling down there (Joshi, 2022). Nepali students have long been attracted to foreign countries for their improved facilities, higher standard of living and increased exposure (Tamang & Shrestha, 2021).

Australia, renowned for its high-quality education system, diverse cultural landscape, and favorable post-study work opportunities, has emerged as a popular destination for Nepali students seeking to fulfill their academic and career aspirations (Australian Government, 2021).

RESEARCH QUESTIONS

- What is the socio economic and demographic background of students pursuing study in Australia?
- What is the educational status of students for decision to study in Australia?
- What are the major motivational factors that influence on decision to study in Australia?
- What is the major expectation of students for decision to study in Australia?
- Is there any significant relationship between social and educational status with motivational factors and expectational factors?

RESEARCH OBJECTIVES

The general objective of the study is to explore the dreams and aspirations of Nepali students planning to study in Australia. The specific objectives are:

- To identify the current educational status, education stream, CGPA and type of educational institutions of emigrant students in Pokhara
- To assess the perception of emigrant students on motivational factors for decision to study in Australia
- To analyze the relationship between motivational factors and expectation with socio-economic variables.

SIGNIFICANCE OF THE STUDY

This study explores Nepali students' aspirations to study in Australia, providing insights into motivations driving international student mobility. It informs the development of tailored support services, broader education sectoral policy, and international relations, contributing to academic literature on cross-cultural education and international student mobility.

LIMITATION OF THE STUDY

This study explores Nepali students' aspirations in seven educational consultancies, focusing on social capital theory and expectation value theory. Data was collected between January and July 2024 in Pokhara, with 202 respondents selected using a convenient sampling method. The study's limitations impact its generalizability and applicability to broader contexts. The study's findings are based on a quantitative method and structured and semi-structured questionnaire tools.

LITERATURE REVIEW

THEORETICAL FRAMEWORK: SOCIAL CAPITAL THEORY

Social capital is a broad term that encompasses the 'norms and networks facilitating collective actions for mutual benefits of the individuals in the society globally. As the social capital theory states, people's decision to migrate is mainly influenced by interpersonal ties that bring the migrants, former migrants and non-migrants in origin and destination countries through ties of kinship, friendship and shared community origin (Massey et al, 1993).

THEORETICAL FRAMEWORK: EXPECTANCY-VALUE THEORY

Expectancy-value theory, proposed by Eccles and Wigfield (2002), suggests that individuals' choices and behaviors are influenced by their expectations of success and the perceived value of the outcomes associated with those choices. Expectancy for success and subjective task value are two direct predictors of achievement choice.

Eccles and Wigfield (2002) further proposed four types of value: intrinsic value (the inner enjoyment a person gains from performing the task), attainment value (the importance of success in undertaking a specific task), utility value (the usefulness of achieving a goal or completing a task) and cost. Cost also has four sub-components: task effort cost (how much time and effort are put into the task), outside effort cost (how much time and effort are spent on tasks other than the task of interest), loss of valued alternatives (LOVA, the loss of other options due to conducting the task), and emotional cost (negative emotions such as stress, worry and anxiety caused by engaging in the task) (Barron and Hulleman, 2014).

Besides, Eccles emphasized EVT as a task-specific motivational model (Wigfield et al., 2016) because individuals may have completely distinct perceptions of expectancy, values and cost for different tasks. In the context of this

study, expectancy-value theory provides insights into the motivational factors driving Nepali students' aspirations for studying in Australia, including expectations of academic success, career opportunities, and personal growth (Smith & Johnson, 2018).

EMPIRICAL REVIEW

Nepal, a nation nestled between China and India, has witnessed significant changes in its education sector in recent years. The study also found that academic reputation, career opportunities, and quality of life influence Nepali students' study abroad decisions (Shrestha, 2018). Nghia's (2019) study among Vietnamese students further identified family, teaching and learning practices, and cultural issues in the home and host countries as factors which motivate students to seek education internationally. Tuxen and Robertson (2019) found students to be motivated by migration and job opportunities in the host country.

The study further reported that significantly fewer jobs are available in Nepal compared to the country's graduates. Thus, some students perceive the better living and working conditions outside

CONCEPTUAL FRAMEWORK

Student decision to study in Australia is influenced by motivational factors, expectation, family income, occupation, and education background. Emigration decisions are dependent on socio-demographic, economic, motivational, and expectation factors.

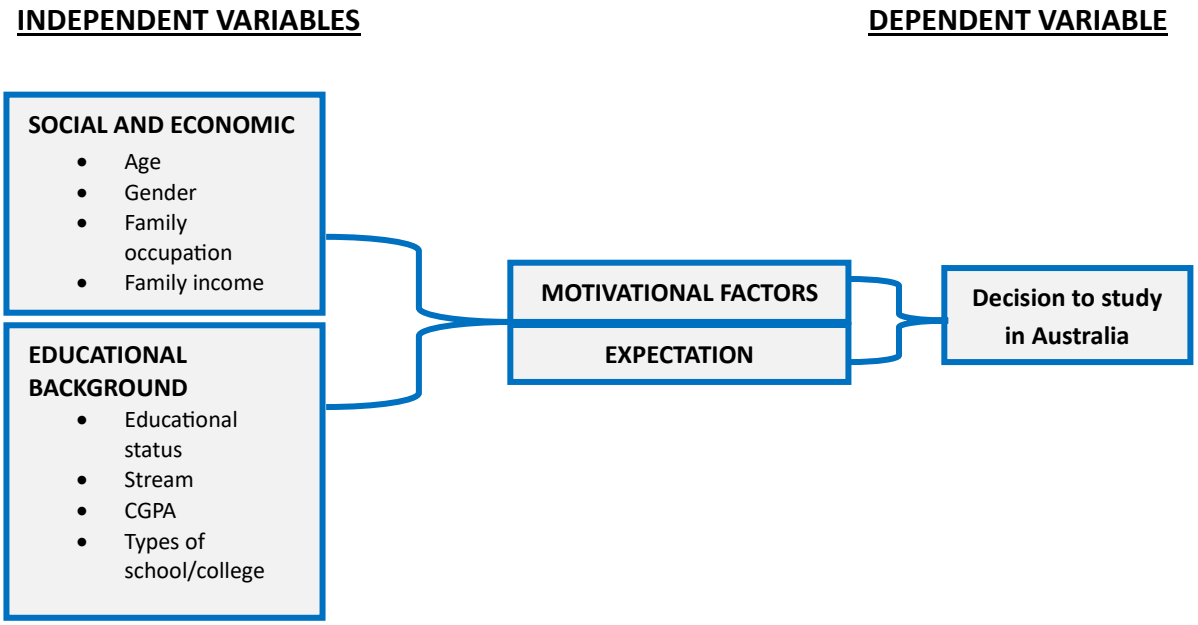

FIGURE 1: CONCEPTUAL FRAMEWORK OF THE STUDY

RESEARCH METHODOLOGY

STUDY DESIGN

The study utilized a cross-sectional survey in Pokhara to explore Nepali students' aspirations to study in Australia, employing a descriptive and inferential research design.

STUDY AREA

The study setting was Pokhara Metropolitan City where most of the higher educational institutions are concentrated. The target population of the study was students who prepared the IELTS, PTE, GRE, Duolingo, etc. from the selected consultancies in Pokhara.

POPULATION AND SAMPLE SIZE

In Pokhara, there are 35 abroad study consultancies working in student visa for Australia, UK, USA, Canda, etc. registered in Pokhara Metropolitan Office, out of which 202 students studying in IELTS and PTE out of 820 were selected based on pilot survey results

DATA COLLECTIONS TOOLS

Data was collected through convenience sampling, semi-structured questionnaires, and face-to-face interviews from respondents preparing IELTS and PTE in educational consultancies in Pokhara, ensuring privacy and confidentiality.

DATA ANALYSIS AND MANAGEMENT

Two hundred two students' data was analyzed using descriptive and inferential statistics, using manual and computer programs. Data was presented using frequency analysis, cross-tabulation, Chi-square tests, and ANNOVA tests.

ETHICAL CONSIDERATIONS

In alignment with the principles of Responsible Research and Innovation (RRI), the study acknowledges the importance of stakeholder engagement, transparency, and societal relevance. Although the study employed a survey method, future research should incorporate focus groups and interviews to ensure deeper participation and insight from Nepali youth.

The study followed ethical guidelines, obtained informed consent, protected confidentiality and privacy, and allowed participants to withdraw at any time without consequences.

RELIABILITY AND VALIDITY

The study identified variables and designed a questionnaire, pre-tested with 22 students in Pokhara, ensuring reliability and consistency. All 202 feedback were complete, with Cronbach's alpha values above 0.70.

RESULTS AND DISCUSSION
SOCIAL AND DEMOGRAPHIC PROFILE

TABLE 1.1

Frequency analysis of socio-demographic profile of the respondents

VARIABLES	CATEGORIES	FREQUENCY	PERCENT
Age (years) Min=17 Max=31 Mean=19.73 S.D.=3.060	15-19 years	140	69.3
	20-24 years	38	18.8
	25 years and above	24	11.9
Sex	Male	115	56.9
	Female	87	43.1
Caste/ethnicity	Brahmin/Chhetri	129	63.9
	Janajati	45	22.3
	Dalits	18	8.9
	Others	10	5.0
Marital Status	Unmarried	187	92.6
	Married	15	7.4
Family Types	Nuclear	158	78.2
	Joint	44	21.8

Source: Field Survey, 2024

Majority of respondents (69.3%) were aged 15-19 years, with an average age of 19.73. Most were male (56.1%) and female (43.1%), with 63.9%) belonging to Brahmin/Chhetri, followed by Janajati (22.3%), Dalits (8.9%), and others (5.0%). Most were unmarried (92.6%) and 78.2% from nuclear or joint families.

ECONOMIC STATUS OF FAMILY

TABLE 1.2

Analysis of economic status of respondent's family

VARIABLES	CATEGORIES	FREQUENCY	PERCENT
Family occupation	Agriculture	27	13.4
	Business	67	33.2
	Government Job	32	15.8
	Private Job	26	12.9
	Others	50	24.8
Family Income Mean=176718.92, SD=525626.657	Below Rs. 100000	57	28.2
	Rs.100000-500000	139	68.8
	Above Rs.500000	6	3.0

Source: Field Survey, 2024

The majority of the respondents' families work in business, followed by government, agriculture, and private jobs. Over two-thirds earn between Rs.100000-500000 per month, with 28.2% below and 3.0% above.

EDUCATIONAL STATUS OF THE RESPONDENTS

TABLE 1.3

Frequency distribution educational status of the respondents

VARIABLES	CATEGORIES	FREQUENCY	PERCENT
Current education status	+2	150	74.3
	Bachelors	34	16.8
	Master	3	1.5
	Others	15	7.4
Stream of current Education	Science	60	29.7
	Management	114	56.4
	Others	28	13.9
GPA of current Education	C	7	3.5
	C+	32	15.8
	B	103	51.0
	B+	53	26.2
	A	7	3.5
Type of school/college completed current education	Government-funded	60	29.7
	Community Funded	17	8.4
	Private	125	61.9

Source: Field Survey, 2024

The majority of the respondents (74.3%) have completed secondary education, with 16.8% having a bachelor's degree, 1.5% having a master's degree, and 7.4% having a master's degree. Management is the most frequently passed stream, followed by science. Over half have achieved B grade, and most have completed their education from private, government, or community institutions.

STUDY PLANNING IN AUSTRALIA

TABLE 1.5

Respondents' perception on study planning in Australia

VARIABLES	OPINION	FREQUENCY	PERCENT
Relative or family members live in Australia	Yes	115	56.9
	No	87	43.1
Course of study in Australia	IT	32	15.8
	Engineering	18	9.0
	Management	95	47.0
	Arts	10	5.0
	Nursing	22	10.8
	Science	25	12.4
Knowledge received from study abroad programme (N=273) *(multiple choice questionnaire)*	Teacher/Professor	26	12.9
	Family members	80	39.6
	Relatives	41	20.3
	Peer Groups/Friends	56	27.7
	Newspapers	10	5.0
	Electronic media	49	24.3
	Others	11	5.4
Advised to go abroad for higher studies (N=235) *(multiple choice questionnaire)*	Family	66	32.8
	Self	141	70.1
	Professor/Teacher	6	3.0
	Peers' groups	14	7.0
	Relatives	8	4.0

Source: Field Survey, 2024

The table shows that most respondents (56.9%) have relatives or family members in Australia, and most plan to study management, followed by information technology, science, nursing, engineering, and arts. 39.6% have gained reliable knowledge from family, peers, electronic media, teachers, others, and newspapers.

DESCRIPTIVE ANALYSIS OF MOTIVATIONAL FACTORS

Motivational factors have been measured using 5-point Likert Scale composed of altogether 5 statements with the scales ranging from strongly disagree to strongly agree where, Scale: 1 (Strongly Disagree) to 5 (Strongly Agree).

TABLE 1.6

Descriptive statistics of the motivational dimensions composite scores

FACTORS	MEAN	STANDARD DEVIATION
Academic Quality	4.23	0.62
Personal growth	4.03	0.66
Career opportunities	4.16	0.72
Financial Consideration	3.55	0.77
Societal influence	4.07	0.99

Source: Field Survey, 2024

Academic quality dimension has the highest score with mean value 4.23 followed by career opportunities with a score 4.16. According to the finding the least important perception has financial consideration with a score of 3.55.

RANK ANALYSIS OF EXPECTATION ON STUDY IN AUSTRALIA

TABLE 1.7

Rank analysis of expectation on study in Australia

STATEMENT	RII	RANK
Avoid the unacceptable political and social conditions	0.75	8
Immigrate in the future	0.65	10
More freedom and be independent	0.80	6
Gain international and cross-cultural perspectives	0.79	7
Good academic experience	0.90	3
Increase the level of my English language skills	0.92	2
Expand career and life opportunities	0.93	1
Get to know people from other countries	0.82	5
Gain other life skills	0.86	4
Influences from friends with study abroad experience	0.67	9

Source: Field Survey, 2024

The surveyed participants ranked expand career and life opportunities as the most important expectation factor that decide the youth to study in Australia with a relative important index of 0.93. And the immigrate in the future with RII of 0.65. This factor scored the ten ranks.

Independent Sample t-test motivational and expectational factors across Gender

Independent sample t-test has been applied to find out the significant difference between the impact factors of motivational factors on study in Australia (academic quality, personal growth, career opportunities, financial consideration and societal influence) across gender.

TABLE 1.8

Motivational Factors across Gender

FACTORS	GENDER	MEAN	STD. DEVIATION	T-VALUE	P-VALUE
Academic Quality	Male	16.85	2.52	.932	.336
	Female	17.04	2.48		
Personal growth	Male	16.02	2.78	1.316	.253
	Female	16.24	2.47		
Career opportunities	Male	16.57	2.79	.009	.926
	Female	16.80	2.98		
Financial Consideration	Male	14.30	3.19	.924	.338
	Female	14.06	2.90		
Social Influence	Male	16.48	3.35	6.680	.010
	Female	15.98	4.64		
Expectation from abroad study	Male	40.06	4.88	-1.329	.185
	Female	40.97	4.80		

Source: Field Survey, 2024

The study found no significant relationship between sex and academic quality, personal growth, career opportunities, financial consideration, societal influence, or expectation and gender, with p-values greater than 0.05, indicating a significant relationship between sex and these factors.

Analysis motivational factors across demographic variables

One way ANOVA test has been applied to find out the significant difference between demographic variables and motivational factors of study in Australia.

TABLE 1.9

Motivational actors of studying Australia across demographic variables

VARIABLES		AQ	PG	CO	FC	SI
Age	F-value	0.381	0.084	0.314	0.795	4.775
	Sig value	0.684	0.191	0.731	0.453	**0.009**
Family Occupation	F-value	0.268	1.083	0.654	0.367	1.077
	Sig value	0.898	0.366	0.625	0.832	0.369
Family Income	F-value	0.257	1.138	3.291	0.579	0.541
	Sig value	0.773	0.323	**0.039**	0.561	0.583
Education status	F-value	0.279	3.764	0.405	2.832	0.367
	Sig value	0.841	**0.012**	0.750	**0.040**	0.777
Stream	F-value	0.473	0.392	3.697	0.677	0.376
	Sig value	0.624	0.676	**0.027**	0.509	0.687
GPA	F-value	2.344	1.404	2.673	0.916	1.850
	Sig value	**0.046**	0.234	**0.033**	0.455	0.121

Source: Field Survey, 2024

Note: AQ= Academic Quality, PG=Personal Growth, CO= Career Opportunities, FC= Financial Consideration and SI= Societal Influence

The study reveals age significantly influences societal influence, while motivational factors are not. Family occupation and income impact career opportunities. Educational status affects personal growth and financial consideration, while academic quality and CGPA are related. No significant association exists between gender and expectation.

CHALLENGES OF AFFECTING DECISION TO STUDY IN AUSTRALIA

TABLE 4.11

Distribution of challenges of affecting decision to study in Australia

CHALLENGES	FREQUENCY	PERCENT
Financial constraints	117	67.2
Visa and immigration processes	126	72.4
Academic prerequisites	81	46.6
Family opposition	28	16.1
Lack of information	55	31.6
Others	22	12.6
Total	**429**	**246.6**

Source: Field Survey, 2024

Based on the multiple responses' questionnaire, more than seven out of ten (72.4%) mentioned that visa and immigration processes is affecting the decision-making process of study in Australia.

SUMMARY OF MAJOR FINDINGS

The study reveals that 74.3% of Nepali students have completed secondary education, with a majority passing through management. Most have achieved B grade, with 61.9% completing their education from a private institution. Most students are male and completed their education from community-funded institutions. Social-cultural theory is used to understand how cultural norms, societal expectations, and familial influences influence Nepali students' aspirations for studying abroad. Seven in ten students follow their own conscience for studying in Australia, with academic quality, personal growth, career opportunities, and financial consideration being important factors. Expanding career and life opportunities, increased English language skills, and good academic experience are the most important expectations. Societal influence has a significant relationship with sex and gender, while age, family occupation, family income, current education status, and CGPA are not associated with expectations.

CONCLUSION

The study reveals that most students are teenagers, unmarried, and from average-income families. They have completed secondary education with a management stream and have completed their education from private institutions. Family members often provide information about studying abroad, but students also consider academic quality, personal growth, career opportunities, and financial considerations. Factors such as societal influence, family income, and education status also influence these decisions. Visa and immigration processes are a significant challenge.

IMPLICATIONS

Based on the study's findings, the following suggestions and recommendation for the government, education institution and stakeholders are made:

- Nepal's Government needs to reform education policy, program and system.
- Enhance promotional efforts highlighting academic excellence, career pathways, and cultural integration programs to attract and retain Nepali students.
- Streamline visa processes, expand scholarship opportunities, and develop support mechanisms that address financial concerns and cultural adaptation challenges.
- Strengthen pre-departure orientation programs, integrate cross-cultural training, and establish peer support networks to enhance students' preparedness and overall satisfaction.

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PAPER – 10

THE EVOLUTION OF TEACHER EDUCATION IN INDIA: FROM ANCIENT TO MODERN TIMES

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INTRODUCTION

The National Council for Teacher Education defines teacher education as a "program of education, research, and training of persons to teach from pre-primary to higher education level'.

The history of teacher education begins in antiquity, and as time passes, it has experienced significant modifications. The goals and structure of the curriculum have undergone numerous revisions and reviews to better meet the needs and expectations of the moment. The Ancient and Mediaeval periods can be used to roughly describe the history of teacher education & are categorized as:

I. Vedic period → Idealism and value education
II. Buddhist period → Collective ethics and self-discipline
III. British period → Utilitarianism and administrative control
IV. Post-Independence → Humanism, Gandhian thought, Constructivism
V. Teacher Education in Independent India

"The Vedic model was rooted in idealist philosophy, where education aimed at self-realization and spiritual upliftment. In contrast, colonial models reflected utilitarian objectives focused on producing clerical staff. These contrasting philosophies continue to influence current educational discourse in India."

TEACHER EDUCATION IN THE ERA OF VEDIC AND BUDDHIST PERIODS

Education in ancient India had a strong connection to moral and spiritual growth. Throughout the Vedic era, the teacher (Guru) was a key figure who taught information orally through storytelling, discussion, and memorisation. Education that seeks to become one with Brahman or achieve self-realization is a manifestation of idealist philosophy. With an emphasis on character development rather than formal education, the teacher-student relationship was intimate and lasting.

In Gurukuls, where education was free and included comprehensive learning, ethical lessons, and practical life skills, students lived with their gurus. Competent pupils occasionally helped out with instruction, demonstrating an early example of peer learning and responsibility sharing-concepts that are consistent with the collaborative and learner-centered methods used today.

Education became more institutionalised throughout the Buddhist era, particularly through monasteries. These organizations placed a strong emphasis on discipline, communal life, and moral behaviour, even though their main goal was to spread Buddhist philosophy. Disciples (saddhiviharikas) were led by the Upajjhaya (teacher) through moral instruction as well as theoretical understanding. Teaching took ten years of a disciplined life, highlighting the value of honesty and maturity in teachers.

Although there was no official "teacher training" in the contemporary sense, the era placed a strong emphasis on principles like ethics, experiential learning, and mentoring that are still essential to teacher education today. This is where contemporary concepts like reflective teaching and value-based education have their philosophical roots. Modern teacher educators can better combine professional rigour and cultural richness by revisiting these practices.

TEACHER EDUCATION DURING THE MUSLIM PERIOD

During the Muslim era, official educational establishments like madrasas and maktabs were established, with a focus on teaching mathematics, astronomy, and philosophy in addition to religious instruction based on passages from the Quran. Maulvis and academicians provided the majority of the lectures.

Similar to the previous peer-learning model, competent students were frequently assigned as assistants or monitors despite the lack of a clear framework for teacher education. But there was no structure to teacher preparation, which prioritised content delivery over pedagogical expertise.

The strategy of the time was a synthesis of religious authority and scholasticism. With little focus on student participation or reflective practice, education served as a tool to uphold social order and tradition. The focus on moral responsibility, discipline, and scholarship in educators is in line with elements of contemporary teacher professionalism, albeit its drawbacks. The gradual shift from unofficial mentoring to the formalised, credential-based systems of later eras is highlighted by understanding this time period.

To better understand the progression and underlying philosophies of teacher education in India, Table 1 summarizes the key features, educational approaches, and impacts of different historical periods. This provides a concise view of how teacher education has evolved from ancient to modern times.

TABLE: EVOLUTION OF TEACHER EDUCATION IN INDIA - KEY FEATURES AND PHILOSOPHIES

PERIOD	KEY FEATURES	EDUCATIONAL PHILOSOPHY / APPROACH	IMPACT / SIGNIFICANCE
Vedic & Post-Vedic	Oral teaching, Gurukula system, peer teaching	Spiritual focus, guru-shishya relationship	Foundation of Indian pedagogy and ethical teaching
Buddhist	Monastic system, formal teacher qualifications	Collective learning, ethical and moral training	Early structured teacher preparation system
Muslim	Madrasas, religious & secular subjects, lecture method	Scholasticism, preservation of Islamic knowledge	Integration of religious and general education
British	Normal schools, Wood's Despatch, formal certification	Colonial control, introduction of English education	Established formal teacher education institutions
Post-Independence	Various commissions, professionalization, curriculum reforms	Learner-centered, flexible curricula	Modernization and expansion of teacher education
National Education Policy 2020	Integrated 4-year B.Ed., continuous professional development	Multidisciplinary, empowerment, inclusive pedagogy	Future-ready teachers with enhanced professionalism

Table 1 summarizes the key features, educational philosophies, and impacts of teacher education across different historical periods in India

As seen in Table 1, teacher education in India has transformed significantly, i.e. from the spiritual and oral traditions of the Vedic era to the structured, multidisciplinary approach envisioned in the National Education Policy 2020. Each period reflects not only the educational priorities of its time but also the socio-political contexts influencing teacher preparation.

EDUCATION OF TEACHERS DURING THE BRITISH RULE

The arrival of the British led to significant structural changes in India's education system. Teacher preparation became more formalized, beginning with Sir Munro's emphasis on teacher training in 1823. The first normal school opened in Madras in 1826, focusing on preparing teachers for district schools.

Macaulay's Minute (1835) famously dismissed indigenous literature in favor of English education, reflecting a utilitarian philosophy-prioritizing administrative efficiency over cultural relevance. Wood's Despatch (1854) was a turning point, advocating for teacher training institutions and the use of English as a medium of instruction. Lord Stanley's Dispatch (1859) and the Hunter Commission (1882) emphasized primary education and introduced incentives for trained teachers.

Later reports like the Sadler Commission (1917), Hartog Committee (1929), and Abbot-Wood Report (1936–37) further addressed curriculum reform, teacher status, and the need for refresher courses. The emphasis increasingly shifted toward standardized qualifications and state control over who could teach and how.

While these developments introduced structure and accountability, they also reflected a colonial mindset that saw education as a tool for governance rather than empowerment. Indigenous methods and philosophies were largely sidelined.

The legacy of this period continues today in the form of centralized teacher certification and exam-based entry into the profession. However, the focus on in-service training and institutional accountability, introduced during the British era, remains foundational. Understanding this history helps contextualize current debates on professional standards and the purpose of teacher education in India.

OVERVIEW OF TEACHER EDUCATION IN INDEPENDENT INDIA

Commission on University Education (1948–1949) this commission was a trailblazer in the newly independent India; it conducted a critical analysis of the then-current teacher preparation programs and recommended that they be adjusted to be more flexible and to ensure that theory and practice complement one another. It ought to be able to accommodate the demands of the current situation. It was suggested that more focus be placed on practical teaching and that appropriate schools be connected to the training institutes. It was necessary to implement course homogeneity across the country. It is credited to this committee that "teacher education" has taken the place of teacher training.

Dr. S. Radhakrishnan chaired the **Secondary Education Commission (1952–53)**, one of the most significant commissions during the post-independence era. It made numerous recommendations whose main goal was to improve India's educational system. It placed a strong emphasis on elevating the prestige of educators by offering them a triple benefit plan that combined insurance, pension, and savings. This commission stressed that, since teachers are essential to both the community and the classroom, professional development for them should be prioritized in addition to improving their qualifications for the goal of educational reconstruction.

The **Education Commission**, also known as **the Kothari Commission (1964–1966)**, was established in response to the need to address the progressive decline in educational quality caused by the growth of educational institutions. This commission noted that a strong professional development program for teachers is necessary to improve the quality of education. It was proposed that teacher preparation programs have to be closely connected with universities and educational institutions rather than being in separate silos. This commission pointed out the shortcomings in the educational system that was in place at the time and offered solutions.

The Chattopadhyay Committee (1983–85). In 1983, the Indian government established two National Commissions on Teachers. "The majority of our Teaching Colleges and Institutes are inadequate," the Chattopadhyay committee noted. "The minimum training duration should be five years after class XII completion if teacher education is to be made relevant to the roles and responsibilities of the new teacher." To allow students to choose teacher education, it was also mentioned that the College of Science and Arts should establish an Education department. This commission recommended that the term "internship" be used in place of practical teaching.

National Policy of Education (NPE) on May 8, 1986, The Lok Sabha approved NPE. Due to the National Curriculum Framework's design and the nation's adoption of the 10+2+3 educational system, this strategy significantly improved the field of teacher education. This panel made the recommendation that pre-service and in-service teacher education be used to accomplish teacher education since both are essential to the process and cannot be separated from it. Training colleges were renamed as Institute of Advanced Studies in Education (IASES) and Colleges of Teacher Education (CTEs), and training schools were renamed as District Institutes of Education and Training (DIETS).

The Yashpal Committee (1993) suggested that teacher training curricula be created in accordance with the needs of the school and placed a strong emphasis on specialization in teacher education. It should be able to instill in the students a sense of independence and self-learning.

National Curriculum Framework (2005): In light of the 1993 study "Learning without Burden," the Executive Committee of NCERT decided to reevaluate the NCFSE, 2000. Prof. Yash Pal headed a national committee including 21 national focus groups that were established for this purpose. Here is a summary of the main arguments presented by NCF 2005 on teacher education:

I. The curriculum for teacher education should be flexible and diverse in its approach, and it should be created with the child's situation in mind.
II. Government policies pertaining to teacher recruitment, pre-service, and in-service training should appropriately represent the professionalization of teaching.
III. The design of the teacher preparation program should enable educators to create a classroom culture that is inclusive of all students and addresses the issue of the connections between the school and the community.
IV. To allow teachers to reflect on their experiences, there should be opportunities for critical thinking and language competency enhancement.
V. The NCF suggested that the curriculum for in-service teacher education be reorganized to better meet the needs of the instructors themselves.

The National Curriculum Framework for Teacher Education aims to prepare teachers who are both compassionate and professional (2009). This document's preamble states that the National Curriculum Framework from 2005 and the Right of Children to Free and Compulsory Education Act from 2009 served as the document's primary inspirations. NCFTE was created with the express purpose of enhancing teacher preparation and elevating the prestige of educators in the county. The National Council for the Field Experience (NCFTE) asserts that a variety of factors, including course length, subject matter expertise, pedagogical abilities, professional dedication, and sensitivity to the needs of students, impact the quality of curriculum transactions in the classroom. The teacher education program should be planned such that it can adapt to the demands of the school since the expectations placed on teachers by the school change over time. According to NCF, a teacher must assist students in creating their own knowledge by acting as a facilitator. Instead of using education as a means of securing employment, instructors must demonstrate a commitment to their vocation. The quality of their education was negatively impacted by a radical increase in the number of students enrolled. The NCTE and NAAC made an effort to promote high-quality education. It discusses the goal of teacher education, goes into depth about the first teacher education curriculum, and offers suggestions for accurately assessing aspiring educators. The NCFTE placed a strong emphasis on enhancing pre-service teacher education and recommended significant expansion and changes to the in-service training program.

National Education Policy 2020: On July 29, 2020, the Indian Union cabinet approved the National Education Policy 2020. It describes the goals of the New Education System, emphasizing teacher preparation, higher education, and school education. The 34-year-old National Education Policy of 1986 was replaced by this new one. Restricting the current school curriculum is one of the policy's most notable changes. The proposed school system would be 5+3+3+4.

ANALYSIS OF NATIONAL EDUCATION POLICY 2020 CONCERNING TEACHER EDUCATION

This policy recognizes that the recruiting process, working conditions, and quality of teacher education fall short of the intended level. In order to encourage the top students to choose teaching as a career, it is necessary to elevate teachers' prestige through empowerment. The Teacher Eligibility Test is discussed as being strengthened in terms of pedagogy and content. Teachers who receive up-to-date information on cutting-edge techniques and advancements in their field will have the chance to engage in ongoing self-improvement. To advance their careers, educators should engage in at least 50 hours of continuous professional development (CPD) annually. Outstanding achievement by teachers should be acknowledged with a rise in salary as well as a promotion. The development of National Professional Standards for Teachers (NPST) by the year 2022 has been assigned by NEP to NCTE. NCTE would become the Professional Standard Setting Body after restructuring. Redesigning the pre-service teacher education curriculum would also be aided by the NPST. The professional standard is intended to be reviewed and revised once more in 2030, with subsequent revisions occurring every ten years after that. By 2030, NEP 2020 hopes to shift teacher education into multidisciplinary colleges and universities because of a growing need for high-quality pedagogy and content. A four-year integrated B.Ed. The degree will be the required minimum qualification for teacher educators by the year 2030. Modern pedagogical approaches, multi-level instruction, learner-centered, collaborative instruction, and teaching children with special needs and disabilities will be the main focuses of all B.Ed. Programs. The Indian constitution's mention of fundamental rights will be emphasized as an essential component of the curriculum, and educators should be ready to help students build sustainable development and environmental awareness because those are skills that will be in high demand in the future. A teacher should be knowledgeable about the most recent developments in educational techniques in addition to being enriched with traditional Indian values and ethos. In order to allow teachers to pursue other specialized areas of teaching that interest them, there will be unique shorter local teacher training programs as well as shorter post-B.Ed certificate programs. Strict action would be taken against those institutions/colleges that do not fulfill the established criteria in order to restore the integrity and caliber of teacher education. A national eligibility test would be held for admission to a pre-service teacher education program in order to ensure consistent standards of teacher education across the country. Retired and highly skilled educators could potentially be hired to provide schools and universities with either short-term or long-term professional help.

CONCLUSION

The history of teacher education in India reveals a shift from value-based, holistic learning in the Vedic and Buddhist periods to structured, formalized systems under British rule. While ancient traditions emphasized moral development and oral instruction, colonial reforms prioritized standardization and certification, often sidelining indigenous philosophies.

Post-independence reforms have focused on professionalizing teaching through structured programs and policy-driven changes. Commissions like Kothari and Chattopadhyay and policies such as NPE 1986 and NEP 2020 reflect evolving efforts to link teacher education with broader social and pedagogical goals.

Modern trends such as learner-centered instruction, inclusion, and reflective practice are rooted in both ancient ideals and contemporary demands. NEP 2020, in particular, aims to align teacher preparation with multidisciplinary, competency-based education while preserving India’s educational ethos.

Understanding this evolution is crucial, not just for historical knowledge, but for shaping responsive, reflective educators. The success of future reforms depends on a shared commitment from teachers, institutions, and society to uphold quality and purpose in education.

SUGGESTIONS

1. Integration of Traditional and Modern Pedagogies
2. Strengthening Pre-service Teacher Education
3. Continuous Professional Development (CPD)
4. Use of Technology in Teacher Training
5. Policy Implementation and Monitoring
6. Focus on Inclusive Education
7. Reforming Teacher Recruitment and Assessment
8. Strengthening Institutional Infrastructure

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PAPER – 11

EMERGENCE OF DEI LITERACY AS GRADUATE COMPETENCY AND THE RESPONSES OF HIGHER EDUCATION: A CRITICAL REVIEW

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INTRODUCTION

The DEI has been recognized and grown in the global context due to social, economic, and ethical demands (Williams, A. D., 2023). This has led to a rise in the expectations of HEIs to develop DEI-literate graduates (SEECHARAN, K., & GREENO, D., 2024). It does this in compliance with society, international standards, and the current trends in vocation. These principles are basic for developing effective multicultural societies and diverse work environments. Consequently, DEI literacy, which is described as the knowledge, skills, and affect needed for functioning within diverse, equitable, and inclusive communities, has emerged as critical in graduate competencies (Jordan, J., et.al., 2024). DEI literacy is seen surging due to frameworks such as the United Nations Sustainable Development Goals (SDGs), especially Sustainable Development Goal 4 for inclusive quality education, the guidelines of the European Higher Education Area (EHEA), and pro Diversity and inclusion by the Association of American Colleges and Universities (AAC&U).

This paper explores the rise of DEI as a competency and critically analyses the response of institutions to address the emergent discourse of DEI literacy as a graduate attribute. It seeks to find out the extent to which HEIs have mainstreamed DEI into their curriculum, pedagogy, and policies for producing graduates to encounter diversified workplace environments. A bibliometric analysis and systematic integration of literature related to DEI trends and HEI responses are used. This approach enables capturing the ways institutions meet DEI imperatives including curricular, instructional, assessment, and internal sociopolitical aspects. Similarly, the results of the study will help HEIs in assessing the development of DEI strategies in curricular and instructional interventions, faculty development, and community engagement projects. Thus, the paper is expected to support existing endeavours of HEIs to equip graduates with DEI literacy and prepare them for organizations in diverse fields. In this review, the following research questions are raised.

1. *What is the progression of DEI literacy as a graduate competency in higher education?*
2. *What are the responses of higher education institutions to the rise of DEI literacy as a graduate competency in the last two decades?*

The theoretical background is described in the next section. The review methodology is outlined in the subsequent section. The findings are presented, and finally, the conclusion, limitations of the research, and recommendations for future research are presented.

THEORETICAL BACKGROUND

In the realm of higher education, DEI has emerged as a critical imperative for HEIs to foster in their learners (Smith, D. G., 2024). Beyond mere literacy of diverse perspectives and backgrounds, DEI competency involves an understanding of the conditions necessary to establish fair and non-exclusionary arrangements (Kożusznik, B., et al., 2014). This has crucial implications for operationalizing DEI as a competency, developing curricula, preparing faculty, and developing students for the increasingly diverse and globalized workplace (Jackson, J., 2018). Table 1 provides some key definitions and theories from foundational DEI literature, showing how DEI has been conceptually and professionally defined as a graduate competency using cultural competence, social justice, and inclusive learning. The definitions inform the analysis of organizational strategies to enhance students' comprehension and acquisition of DEI competencies in higher education, preparing them to meet the diverse professional and social needs of the future society.

CONCEPTUALIZING DEI LITERACY IN HIGHER EDUCATION

According to Spady (1994), a competency is "a clearly defined and observable ability to perform a skill, task, or behavior at a specified level of proficiency". DEI literacy is increasingly regarded as an essential aspect within the ethical and strategic framework of HEIs (Willis, D. S., & Schram, L. N., 2022) involving the knowledge of DEI cultures, multiculturalism, self-care and empathy, and systemic perspectives (Poole, A. H., et. al., 2021). DEI-literate graduates effectively function in pluralistic settings that embrace diversity, promote equity, and cultivate inclusion. The pursuit of skills to deal with social inequality and to construct an inclusive society within and beyond HEIs is valued (Marginson, S., 2016) for global citizenship.

TABLE 1: DEFINITIONS OF DEI AS A COMPETENCY IN HIGHER EDUCATION

DEFINITION	THEORETICAL LENS	SOURCE
"DEI competency encompasses the knowledge, skills, and abilities required to effectively engage with diverse populations, understand systemic inequalities, and foster an inclusive environment."	*Critical Race Theory (Delgado & Stefancic, 2017):* Focuses on addressing systemic inequalities in education.	AAC&U (Association of American Colleges and Universities), 2015
"Cultural competency is the ability to effectively communicate and interact with people from different cultures, necessitating an understanding of cultural differences and the impact of one's own culture."	*Intercultural Competence Theory (Deardorff, 2006):* Promotes effective intercultural communication and understanding.	Cross, T., Bazron, B., Dennis, K., & Isaacs, M, 1989
"Intercultural competence involves the skills and knowledge necessary to communicate effectively and appropriately with individuals from other cultures, facilitating understanding and collaboration."	*Intercultural Competence Theory (Deardorff, 2006):* Justifies preparing graduates for globalized workplaces.	Deardorff, D.K, 2006
"DEI literacy refers to an individual's awareness, knowledge, and skills to engage in meaningful dialogue and action concerning diversity, equity, and inclusion."	*Transformative Learning Theory (Mezirow, 1991):* Reflects the role of critical reflection in reshaping students' views on diversity.	Association of American Colleges and Universities (AAC&U), 2015
"Inclusive excellence is a strategic approach to advancing diversity, equity, and inclusion in higher education by embedding these values into the core mission of institutions."	*Organizational Change Theory (Kotter, 1996):* Explains strategies for embedding DEI into institutions amidst resistance.	Williams, D. A., Berger, J. B., & McClendon, S. A, 2005
"Cultural humility is a commitment to self-reflection and lifelong learning about different cultures, recognizing that individuals cannot be fully competent in every culture."	*Cultural Humility Theory (Tervalon & Murray-García, 1998):* Emphasizes lifelong learning and self-reflection in DEI education.	Tervalon, M., & Murray-García, J, 1998
"Social justice education prepares students to become aware of, understand, and address social inequalities, emphasizing the role of education in promoting equity and justice."	*Social Justice Education (Adams et al., 2007):* Focuses on equipping students to address societal inequities.	Adams, M., Bell, L. A., & Griffin, P. (Eds.), 2007

DEI IN GLOBAL FRAMEWORKS AND HIGHER EDUCATION

Integration of DEI into the higher education system was guided by SDGs, EHEA guidelines, and AAC&U (Balderama, H. et.al, 2021). These frameworks call for approaches to learning that will enable all students to cope with the growing social diversity within societies and interdependent communities. For example, SDGs on equality and quality education for everybody. The primary approach in the EHEA framework concerns the acquirement of transversal competencies like critical thinking, problem-solving, and cultural competencies for both employability and responsible citizenship (Garcia-Esteban, S., & Jahnke, S., 2020). AAC&U supports education on diversity and equity for multi-culturalist and shared citizenship outcomes.

INSTITUTIONAL RESPONSES TO DEI AS A GRADUATE COMPETENCY

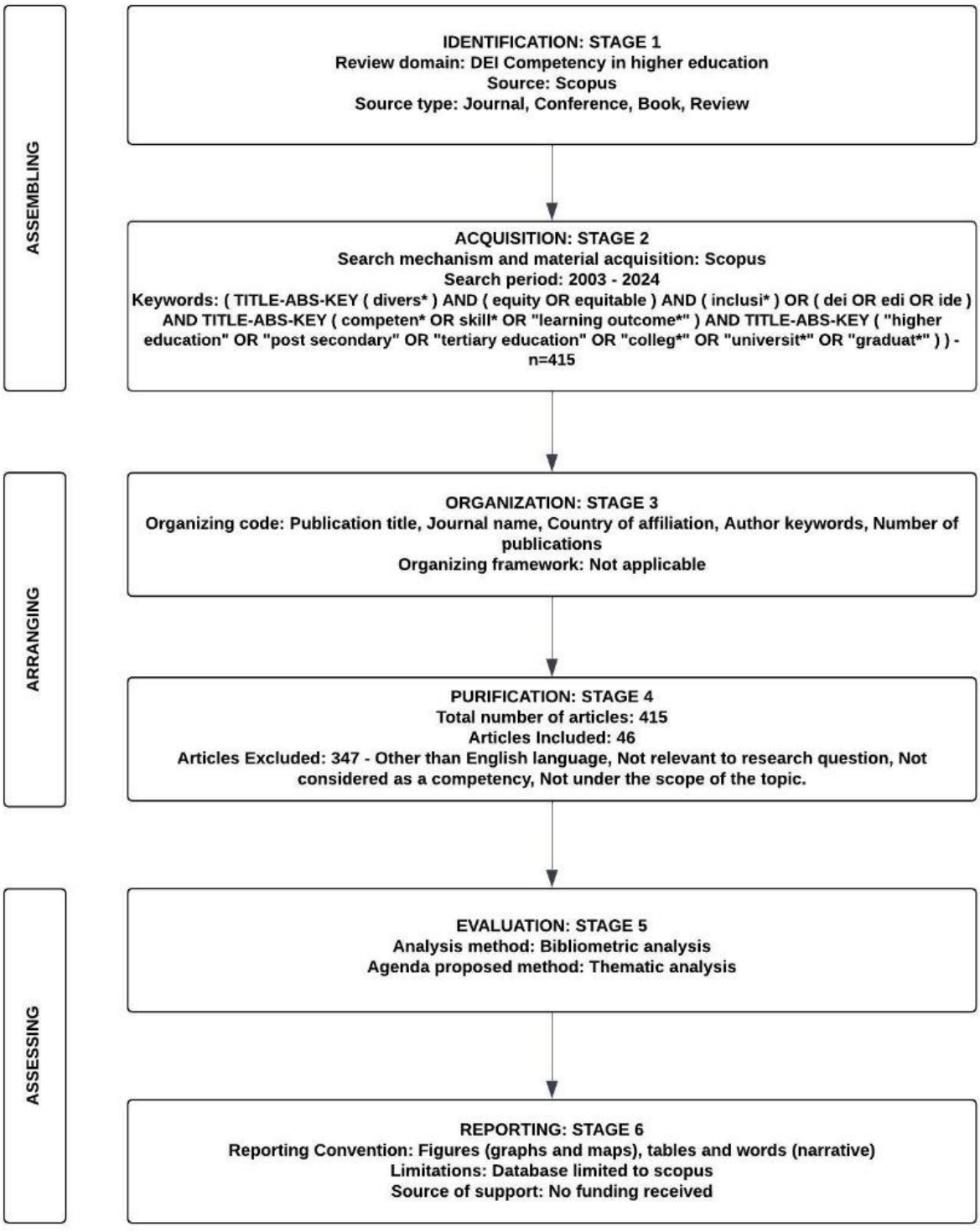
HEIs in various fields, like business and management, health professions, social sciences, and humanities (Romanovskyi, O., & Romanovska, Y., 2020) address inclusion predominantly through the incorporation of DEI principles into their courses, pedagogical approaches, and experiential learning / community-based projects. Holistic subject experiences ascertain wide acquaintance with DEI matters. To measure the DEI competency level, HEIs resort to a wide range of assessments in both formative and summative kinds (Olin, V., 2023). Organizational policies, governance, and structure are responding to the call for DEI inclusion with increasing levels of formality to encourage the establishment of organizational accountability.

METHODOLOGY

SPAR-4-SLR AND BIBLIOMETRICS

This paper uses the Scientific Procedures and Rationale for Systematic Literature reviews (SPAR-4-SLR) protocol following the three stages – assembly, arrangement, and assessment (Figure 1) (Raman et al., 2022). Scopus database was used as the source for accessibility reasons and also to avoid database redundancy. To quantify the issue of textual proliferation, bibliometric measures have been applied, using the number of publications, geography distribution, emerging trends, and keyword co-occurrence. To perform this study, the Biblioshiny package in R and VOS viewer were employed.

FIGURE 1: SPAR-4-SLR



FINDINGS

PUBLICATION STRUCTURE AND GEOGRAPHICAL DISTRIBUTION

The contribution of DEI research as competency was relatively low before 2000 but has increased significantly after 2018 prompted by Social Justice movements especially Black Lives Matter and # MeToo (Fileborn & Loney-Howes, 2019), increased globalization, and DEI in United Nations Sustainable Development Goals, SDG 4, and SDG 10 (McCowan, 2019). COVID-19 revealed the power of technology in combatting exclusion (Dhawan, 2020).

Figure 3 illustrates geographical distribution in DEI research. The USA leads with nearly 3000 articles, followed by countries like Canada, Australia and UK. Most DEI seems to be originating from Western, English-speaking countries as regions such as Spain, India, and South Africa, for instance, report much less.

FIGURE 2: ANNUAL SCIENTIFIC PRODUCTION

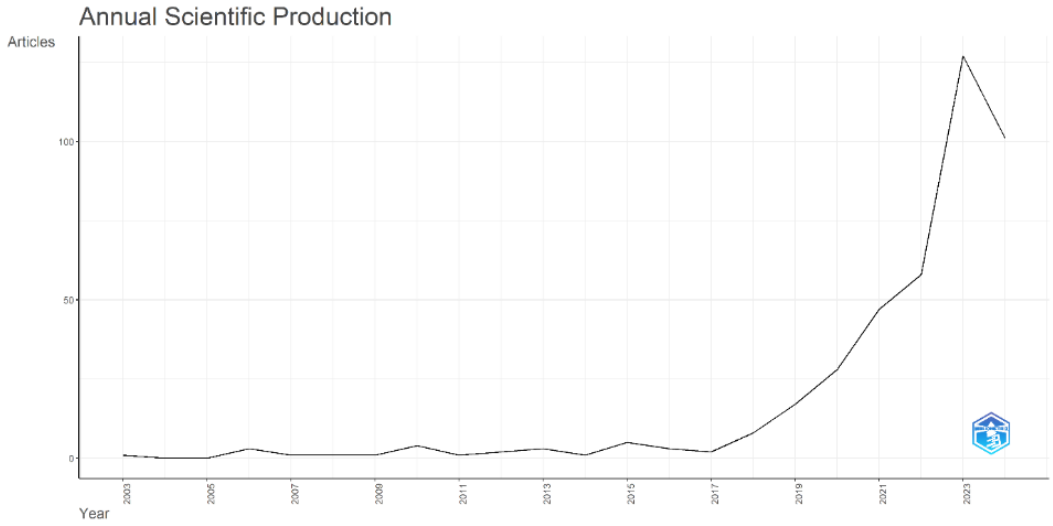
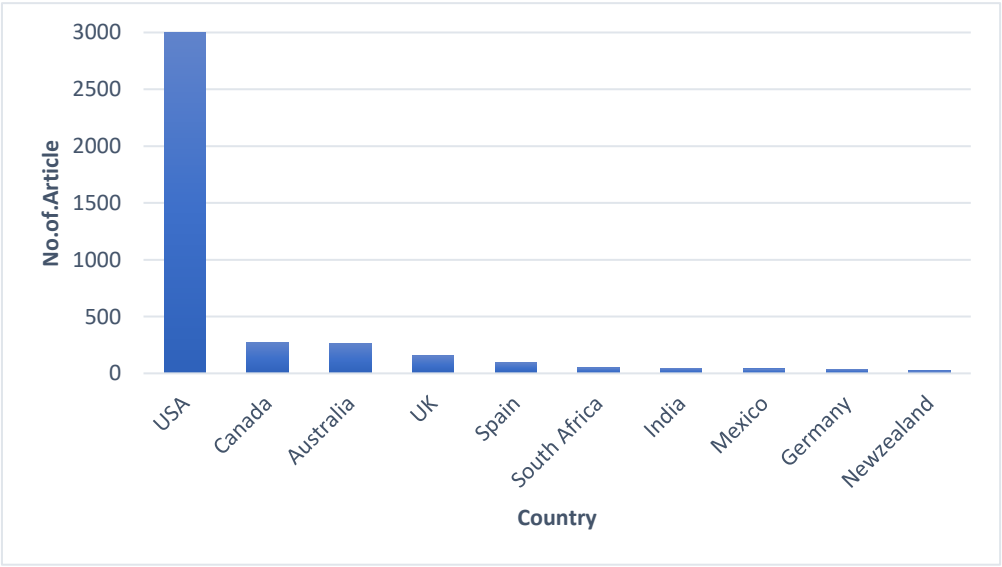


FIGURE 3: GEOGRAPHICAL DISTRIBUTION

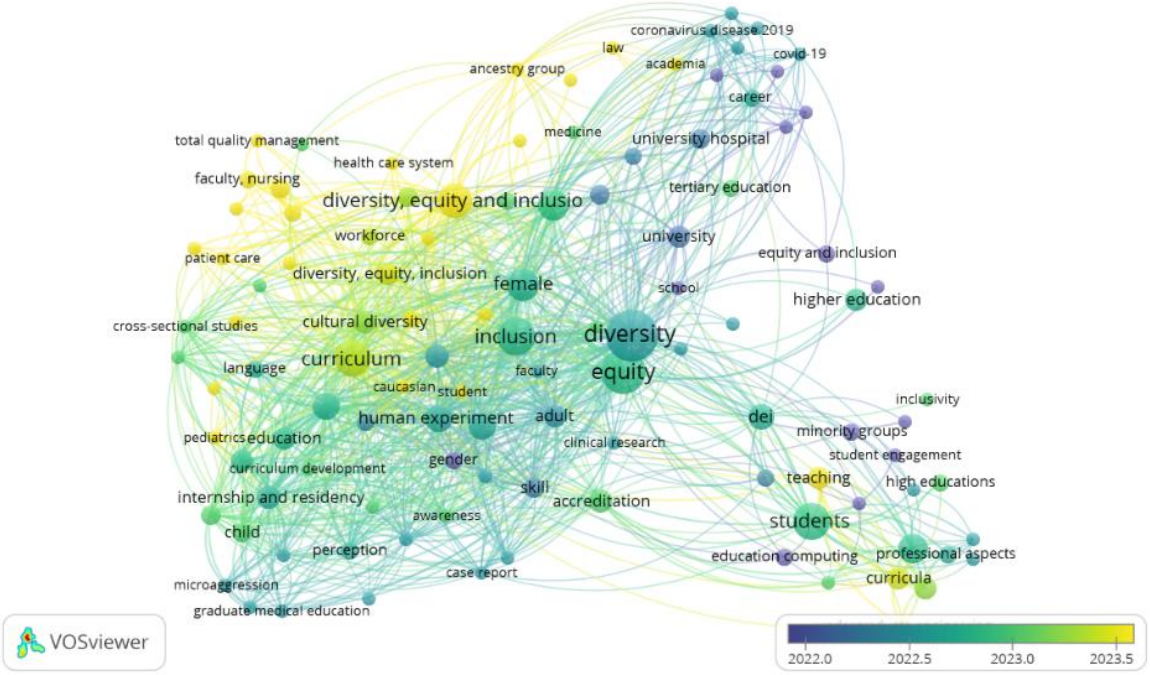


KEYWORD CO-OCCURRENCES

Several conclusions could be drawn from the keyword co-occurrence map. The themes “diversity”, “equity”, “inclusion” and “curriculum” emerged as the connecting keywords, showing DEI issues are central to defining the content of educational courses and organizational guidelines and frameworks. Also, they are relatively recent focus areas of research done in the calendar year 2022. Faculty from nursing, patient care, and health care system terms in the whole network that connect with DEI concepts confirm a rather strong overlap between DEI investigation and the context of health care, signaling the importance of DEI competency in medical education. Terms like “students”, “teaching”, “curricula”, “engagement” and “professional concerns” indicate that HEIs are committed to the implementation of DEI into tutor-training approaches, assessments, curricula, students’ engagement, and overall professional development.

Issues related to “cultural diversity” including; “minority”, “multicultural”, “cultural responsiveness”, “gender” and “social justice” indicate other DEI discourses that inform the understanding of the direction that research takes showing how students fit into learning environments, or as elements of curricular design. This map shows that there is increasingly more overlap in interdisciplinary focus on DEI. The use of linked terms demonstrates that there is entwinement between DEI research and practices, which focuses on “cultural competence”, “inclusive curriculum” and “students’ engagement” as part of efforts in shaping the learning environment. Shifting the time focus to the last couple of years, it is possible to observe that DEI has become a more pressing topic than before.

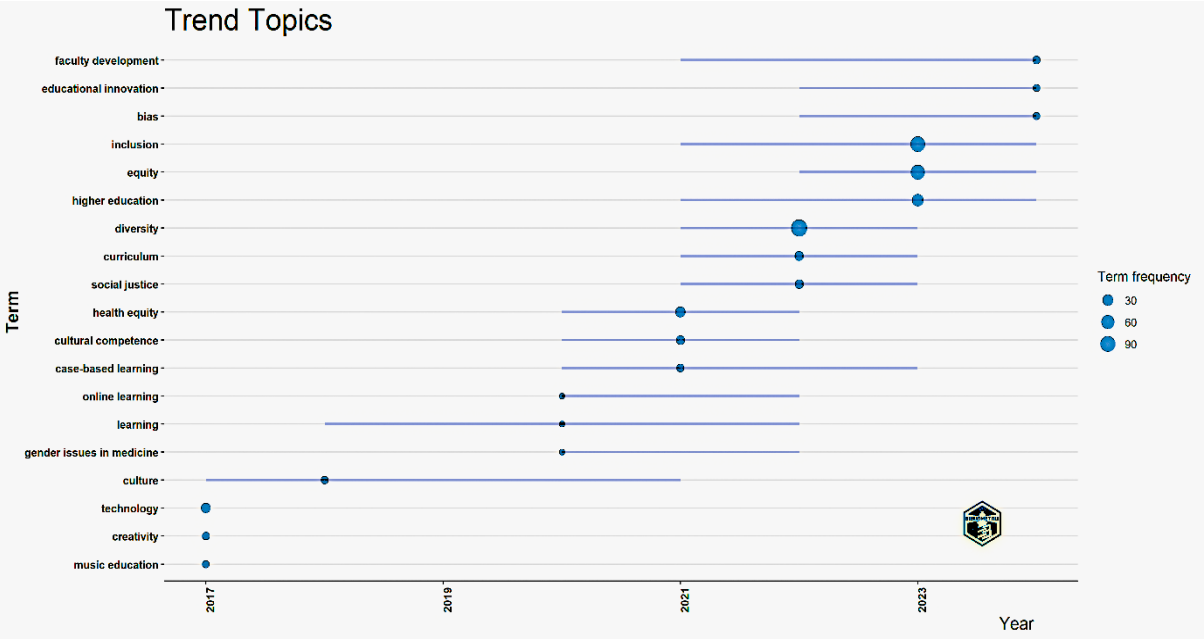
FIGURE 4: OVERLAY OF KEYWORD CO-OCCURRENCE



EMERGING TRENDS

Trend Topics Visualization in figure 5 involves researchers discovering new topics on the rise in a given field of study. This shows a sharper increase in research on Diversity, Equity, and Inclusion (DEI) and related topics in higher education between 2017 and 2023. Post 2020, "equity", "diversity" and "inclusion" appears more frequently, which may also mean more academic research attention to the institutionalization of DEI. The trend towards DEI changes from using generic and more general terms such as 'diversity,' 'diversity and multiculturalism,' to these moderate to new emerging terms: 'faculty development,' 'educational innovation,' 'curriculum,' 'health equity,' 'social justice.' Some of these terms are interdisciplinary while the rest belong to the education discipline, particularly the health and social sciences disciplines. The increasing focus on "culture" makes cultural competence even more significant as one of the essential graduate competencies in learning and vocational contexts. This shift is aimed at addressing society's rising concerns about the implementation of DEI that defines adequate learning environments.

Figure 5: Emerging topics



Insights from a systematic analysis of the published research papers on DEI in higher education can be categorized by three focus areas- students, faculty, and institutions representing the principal stakeholders in higher education, and six key dimensions – Curriculum, Instruction & Assessment, Outcome, Training/Policies and specific fields of study. The matrix attempts to provide a clear and simple plan of the ongoing issues discussed in the integration of DEI in academia. The salient findings & recommended research directions from the reviewed papers are presented in Table 2.

TABLE 2: SALIENT FINDINGS & RECOMMENDED RESEARCH DIRECTIONS FROM THE REVIEWED PAPERS

FOCUS / DIMENSIONS	SALIENT FINDINGS & RECOMMENDED RESEARCH DIRECTIONS					
	CURRICULUM	INSTRUCTION & ASSESSMENT	OUTCOMES	TRAINING & AWARENESS	POLICY	FIELD-
Student	Co-creation of curriculum with students for diverse points of view. DEI embodied in courses like service-learning and community projects	Reflective tasks to assess DEI value integration among students Experiential learning like role plays to understand systemic prejudices Formative instead of summative assessments	Behavior changes toward ethnically diverse peers Increased involvement in DEI-related student organizations, post-curricular intervention Insufficient data on DEI initiatives after graduation	DEI training during initial orientation Race, privilege, and bias discussions in regular classes to help students confront related issues Lack of sufficient direction for extended DEI training beyond the curriculum	Absence of obligatory functions of DEI engagement for all students; policies are normally department-based Student policies are mostly reactive in addressing DEI issues Policies do not encourage the recognition of student leadership in DEI efforts beyond course expectations	*Healthcare*: Comprehensive DEI frameworks are developing *Engineering*: Inclusion is the new focus on leadership *Business/Arts*: Complacency in systemic DEI efforts
Faculty	Faculty-led curricular change efforts in courses examining society and ethics Interdisciplinary teaching approaches to DEI across departments for subject variety *Challenge*: faculty may lack the adequate institutional support or guidance required	Instructional rigor suffers from a lack of formal tools to evaluate the quality of DEI instruction Lack of multiple measures for the effectiveness of DEI inclusion in courses and assessments Lack of DEI assessment training resulting in unfair evaluations	Improvement in faculty-student interactions, nurturing a diverse student base in research and projects, following DEI inclusion However, DEI performance outcomes of faculties are not considered in tenure or promotion.	Faculty trained on prejudice in the learning environment Lack of ongoing training on DEI Lack of programs on teaching and practicing DEI principles in mentoring, especially for early career faculty	Pressure from institutional expectations Fragile structures governing DEI, for faculty hiring and promotion, particularly for disciplines outside of DEI fields Many faculty evaluations tend not to include specific metrics concerning DEI undertakings, making DEI accomplishments mostly marginal	*Healthcare*: Increasing DEI integration in faculty development *Law/Business*: Increasing concern with equity in faculty preparation *Arts & Humanities*: Lack of adequately developed faculty engagement on DEI

Institution	External pressure to develop and implement inclusive programs for ethnic minorities and marginalized populations Incorporating the DEI principles in their strategic plans to embrace cultural humility and diversity literacy Mobilizing learning resources for increased incorporation of diversity in the curriculum	No comprehensive institutional plan for supporting the various DEI assessment practices No institutional-level standardized methods for effective inclusion of DEI principles No objective measures for DEI learning achievements predominantly (only from students' satisfaction surveys)	Institutions focus more on diversity in recruitment and retention than on learning environments Inconsistent institutional DEI outcomes and insufficient connection between the institution's initiatives and the department's work Measuring long-term DEI impact is difficult, especially as an assessment of institutional DEI progress in cultivating DEI leaders	Varying levels of rigor resulting in faculty not being equally prepared Absence of ongoing institutional training Most advisories have poor follow-up action on recommendations	Lack of uniformity in expectations on faculty DEI involvement affecting their performance evaluations DEI policies are limited to diversity figures that do not indicate curricular or faculty transformation Failure to implement acceptable policies on DEI objectives at the institutional level DEI frameworks provide only strategic coverage without substantive application	*STEM*: High levels of institutionalization of diversity, particularly in technical professions *Humanities*: Slow adoption institutional DEI frameworks *Arts*: Still remains relatively unanswered in institutional DEI initiatives

DISCUSSION

CURRICULUM AND INSTRUCTIONAL GAPS IN DEI INTEGRATION

Despite these appeals and growing commitments to DEI, DEI efforts are only sporadically implemented across disciplines at institutions today. Overall, there is still discontinuity in how effective DEI inclusion is and where it is not. Cognitive-behavioural techniques are employed frequently in learning and teaching, and many of the strategies are reflective and experiential in nature, though exercises developed to ensure systematic and comprehensive assessment of learning in DEI are lacking. The absence of a logical analytical structure of assessment tools including journals and peer feedback raises the question of how DEI can be coherently modelled within and across programs.

OUTCOME-SPECIFIC LIMITATIONS, ASSESSMENTS, AND LONG-TERM IMPACT CHALLENGES

Several challenges confront institutions in the assessment of program outcomes of DEI education for students and faculty. Besides temporary positive changes in attitudes to empathy and intercultural communication, there are limited ways of assessing such outcomes after students' graduation. The hiring of more faculty of colour is on the rise, but this action is not felt in tenured positions for diversity and inclusion. Thus, a lack of tangible, sustainable DEI outcomes exposes the problematic gap between institutional DEI objectives and tracking systems, which does not allow students and faculty to effectively express the relevance of their DEI participation.

POLICY AND TRAINING INADEQUACIES

Overall, DEI policies and training continue to be mostly responsive and less integrated within the institutional context. It reflects on engagement as people are motivated by certain events or even one-shot seminars, not training. No current policies within the faculty insist on or reward DEI-centric teaching or service or encourage its absence in assessment and promotions. Although diversity discussions and training sessions are standard, few programs have a long-term commitment, essential for student and faculty DEI reinforcement. There is a need for institutions to have policies that would facilitate consistent DEI learning and promotion of independence to all ranks.

CHALLENGES AND IMPLICATIONS

INSTITUTIONAL RESISTANCE AND RESOURCE LIMITATIONS

However, one of the biggest barriers is the resistance to change in the process of developing DEI literacy within HEIs. Students are not the only ones who can provide a negative response to DEI integration the stakeholders including faculty and administrators can too. Perceiving the integration of DEI as extra work is powered by an unconscious bias towards such efforts. Lack of resources in many institutions and budget constraints are hurdles, given the formidable costs for sustainable DEI programs Funds for minority faculty development and diversity engagement become scarce when there are competing demands on the limited resources.

CURRICULAR AND PEDAGOGICAL INTEGRATION CHALLENGES

DEI in core curriculum is still fragmented and many HEIs are not experienced or competent at delivering these competencies in their programs. Inadequate cultural sensitivity and endemically subconscious prejudice pose another challenge for DEI within education. Despite the need for professional development of teachers, many programs, including those for teaching diversity and inclusiveness are scarce and ineffective, while teachers do not know how to promote an inclusive classroom climate.

SUSTAINED INSTITUTIONAL COMMITMENT AND COMMUNITY ENGAGEMENT

Strong support for achieving sustained DEI change requires institutional engagement of a long-term nature; however, many HEIs fail to consistently sustain that momentum. They carry out this process not just through leadership but through an ongoing evaluation of DEI efforts as well. Additionally, this can enhance the learning among students in other community practice-based activities that link DEI experiences to application. Engagement with other organizations and the international community offers real-world application experiences for students and enhances the institutional values of DEI for social justice, equity, and inclusion.

CONCLUSION AND FUTURE RESEARCH DIRECTIONS

The recognition of DEI literacy as a new graduate learning outcome and requirement means that academe has taken a significant leap forward to answering society's need for diverse, equitable workplaces. Currently, there are challenges that many HEIs still face to embrace DEI literacy; these include; resistance to change, implicit bias, and inadequate resources for change. Sustention to DEI programs will enable the institutions to produce human resource graduates who are fit to work in diverse and global settings. This paper contributes to the current body of work advancing DEI integration in higher learning institutions particularly noting that structures such as training programs, curriculum modification, and learning environment factors are fundamental constituents of DEI knowledge expansion.

Therefore, future studies should incorporate advanced standardized instruments that provide large-scale assessments, analyses, and comparisons of long-term outcomes of the effects of DEI education both to students and faculties beyond their graduation periods. Further, new strategies for the integration of DEI may be discovered when analysing interdisciplinary connections across different marginalized disciplines from arts and humanities. Another important area of the study will be examining whether sustained institution-wide DEI training initiatives and other interventions lead to the lessening of the impact of unconscious biases in teaching practices and embedding long-term cultural change within HEIs. Exploring how DEI competencies relate to professional outcomes after graduation could also enhance the methods, that educational institutions use, and how these best fit the international demands for the workforce.

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ENVIRONMENTAL SCIENCE

PAPER – 12

COMMUNITY AWARENESS AND PREFERENCES FOR PARTICIPATING IN ECOTOURISM ACTIVITIES IN EPPING FOREST, LONDON, UNITED KINGDOM

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INTRODUCTION

Ecotourism has been the new drift in the general field of tourism globally, since it engenders sustainability and resource conservation. Ceballos-Lascurain, (1987) defines it as "traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the landscape, its wild plants and animals, as well as any existing cultural manifestation (both past and present) found in these areas". According to Lee and Han (2018), ecotourism is currently understood to be responsible travel to a natural region for sensitive reasons like knowledge acquisition, cultural immersion, and enjoyment of the natural surroundings. These elements support the growth and development of the local economy, preserve ecosystems, and enhance the sociocultural elements of the community (Cobbinah et al. 2015; Hakim 2017; Pornprasit and Rurkkhum 2019). The integration of cultural elements (Azis et al. 2018), an educational/learning component (Wardle et al. 2018), and its contributions to the understanding of regional customs and goods (He et al. 2018; Bianco and Marcianà 2018) are some of the tourism's most notable attributes. Although there is no universal definition of ecotourism, authors like Donohoe and Needham (2006) review and propose some basic principles to understand ecotourism: it must be based on nature, include preservation/conservation, education, sustainability, distribution of benefits, ethics, responsibility, and awareness. Despite this, the concept has always been elusive and contentious (Weaver 2002, Palmer and Chuamuangphan, 2018), as the tourists is seen as a crucial component of sustainable tourism development because it has the power to influence its success or failure. However, according to Iqbal et al. (2022), despite being adopted as a major pillar of ecotourism development, the literature shows that local populations must continue to actively participate in ecotourism development planning and decision-making.

In this regard, social engagement to nature-based activities is critical for achieving socioeconomic and environmental sustainability (Armitage 2005). The literature is replete with evidence demonstrating the value of social participation in ecosystem management (Mountjoy et al. 2016). Long-term success in community-based ecotourism demands extensive community involvement (Jamal and Stronza 2009) and partnership (Okazaki 2008). Schismenos et al. (2018) argue that when local populations are taken into account, environmental protection and ecotourism advantages grow since the need to improve quality of life and conserve resources is a priority. Some authors, such as Bello et al. (2016), emphasise the need of community participation in tourist planning as a means of achieving sustainable tourism and reducing poverty. This engagement could help the host community's social and economic sustainability by giving a new source of money, product development, and employment (Kuuder 2012; Mäntymaa et al. 2018).

Conversely, limited community participation leads to low levels of awareness and resident engagement in projects (Aweto et al., 2018). As a result, understanding local perceptions, knowledge, and interests in ecotourism is critical to its success (Berkes 2004; Martini et al. 2017). In this regard, ecotourism is part of a larger plan to achieve conservation through alternative development mechanisms (Stronza, Hunt, and Fitzgerald, 2019). As a result, this study posits that people will conserve resources when they are incentivised to do so and/or given appealing financial alternatives for resource exploitation (Stronza and Pêgas, 2008).

A number of ex-post studies on ecotourism participation have been conducted. However, study does not include an ex-ante investigation of social preferences for a scenario of participation in ecotourism activities. As a result, assessing ex-ante social preferences is critical since the community's willingness to participate in tourism activities and their attitudes towards tourists in their area are major markers of tourism sustainability (Jurowski and Gursoy 2004; Weaver and Lawton 2006. Ecotourism is growing in biodiversity hotspots due to its promise of economic growth, sociocultural sustainability, and environmental conservation (Weaver, 2002; Brandt and Buckley, 2018).

However, ecotourism raises certain issues about its viability due to a lack of understanding about its implementation and the inappropriate exploitation of nature; also, it is unclear how true it is that the actual beneficiaries are the host communities (Luna et al. 2020; Mosquera et al. 2019). Therefore, this article aims to contribute to this field of research and fill research gaps by evaluating community awareness and preferences for participating in ecotourism activities in Epping Forest, London, United Kingdom. To this end, the following specific objectives were proposed in this research: to identify the ecological resources in Epping Forest, and to assess the social perceptions about the ecosystem and ecotourism, in Epping Forest, London, United Kingdom.

MATERIALS AND METHODS

DESCRIPTION OF THE STUDY AREA

Epping Forest (EP), the largest forest in London metropolis is a 2,400-hectare forest with natural ecosystems, located on the fringe of the London built-up area, between Greater London and Essex (Ramsey, 2019). Research revealed that Epping Forest is worth around £64.4 million a year in public benefits, with a present value of £1.9 billion over 50 years. The main body of the forest stretches from Epping in the north, to Chingford on the edge of the London built-up area. South of Chingford the forest narrows, and forms a green corridor that extends deep into East London, as far as Forest Gate; the forest's position gives rise to its nickname, the Cockney Paradise (Layton, 2018). The latitude of Epping Forest, UK is 51.657078, and the longitude is 0.041282. The GPS coordinates recorded is 51° 39' 25.4808'' N and 0° 2' 28.6152'' E. It contains areas of forests, grassland, heath, streams, bogs and ponds. It is less suitable for agriculture, due to its elevation and poor soils (the result of glaciation). The forest was historically managed as a common; the forest land was held by a number of local landowners in the past, who exercised economic rights over aspects such as timber resources, as well as the wildlife species. Some individuals were granted grazing and other rights. However, it was designated a Royal Forest, meaning that only the monarch had the right to hunt deer (Allan, 2009).

FIGURE 1: AN ARTISTIC IMPRESSION OF THE CITY OF LONDON (GREATER-LONDON) SHOWING THE EPPING FOREST (THE GREEN COLOUR). SOURCE: FIELD SURVEY, 2023

DATA COLLECTION

Ecological resources in relation to the flora and fauna resources of Epping Forest was investigated, utilizing the In-situ method and a reconnaissance survey-style methodology. The systematic line plot technique was used for the establishment of sampling plots for floristic survey of woody trees species and shrubs. Seven (7) 50 × 50m sample plots were established in the forest using a systematic line plot sampling technique. There were two 2km transect lines established, spaced 409m apart. Four sample plots were placed along the first transect and three sample plots were placed along the second transect at 409-meter intervals. Using a global positioning system, the coordinates of each plot were recorded at the plot Centre (Garmin GPSMAP 78). A questionnaire survey was conducted to investigate the extent to which tourists prefer to participate in ecotourism activities in Epping Forest. A non-probabilistic sample technique was used, and the structured questionnaire was disseminated to 75 persons using an intentional strategy to discover the respondents' socioeconomic characteristics, as recommended by Daniel (2012). Variables in the socioeconomic component and respondents' willingness to participate in ecotourism activities were analysed.

DATA ANALYSIS

Binary Logistic Regression technique was applied through the statistical software for social science (SPSS) 2.0.

RESULTS

Data revealed that Epping Forest (EP) is rich in both flora and fauna resources capable of sustaining ecotourism development.

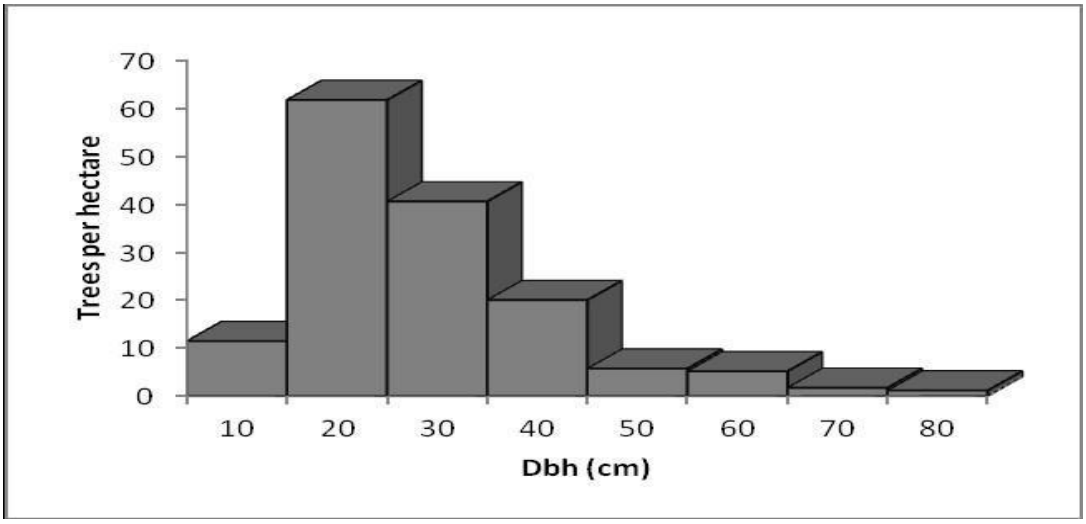

FIGURE 2. STEM DIAMETER DISTRIBUTION OF TREES SPECIES IN EPPING FOREST SOURCE: FIELD SURVEY, 2023

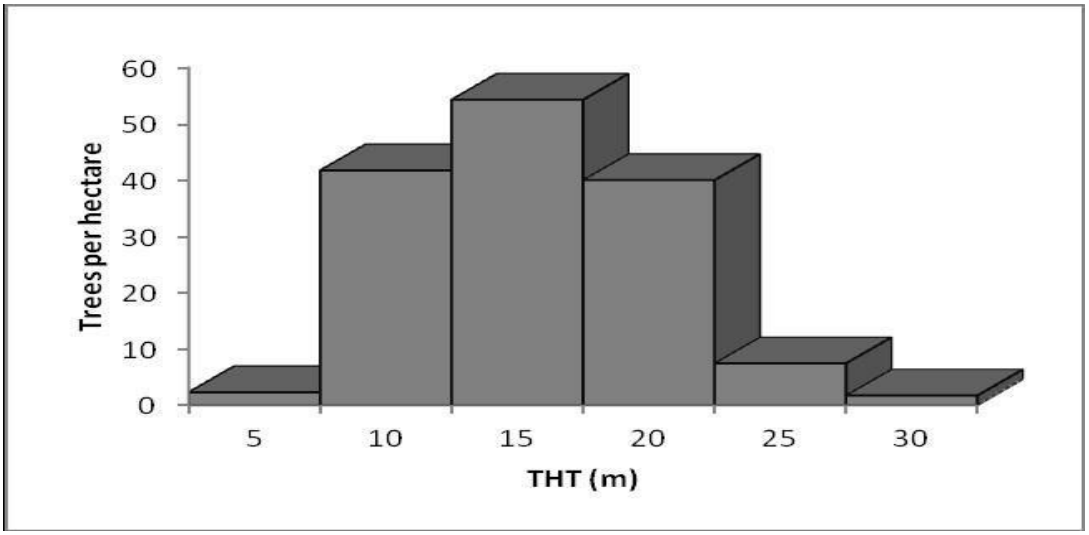

FIGURE 3. TOTAL HEIGHT DISTRIBUTION OF TREES SPECIES IN EPPING FOREST SOURCE: FIELD SURVEY, 2023

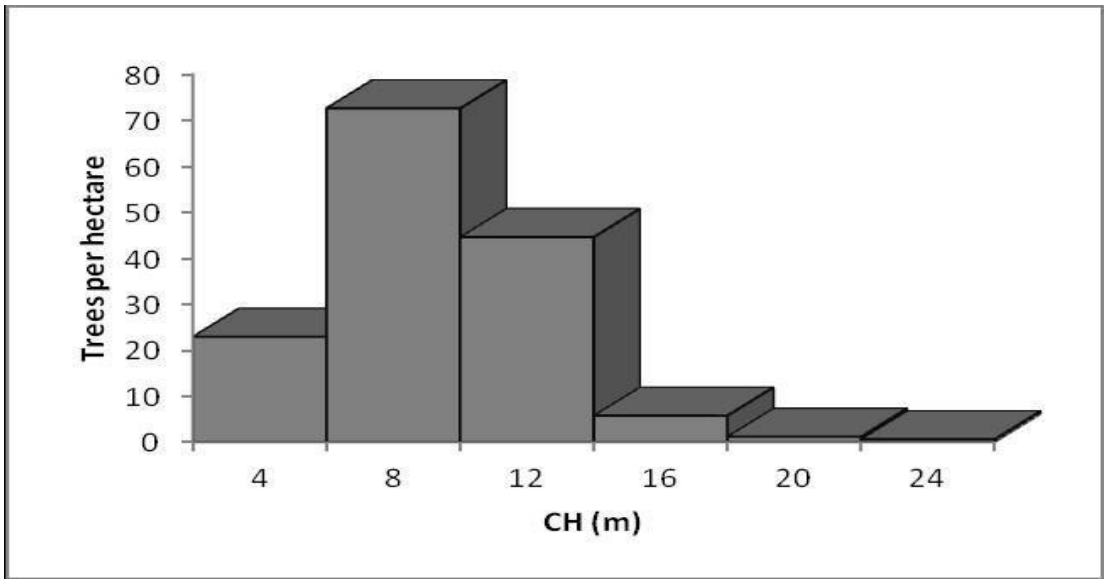

FIGURE 4. CROWN HEIGHT DISTRIBUTION OF TREES SPECIES IN EPPING FOREST SOURCE: FIELD SURVEY, 2023

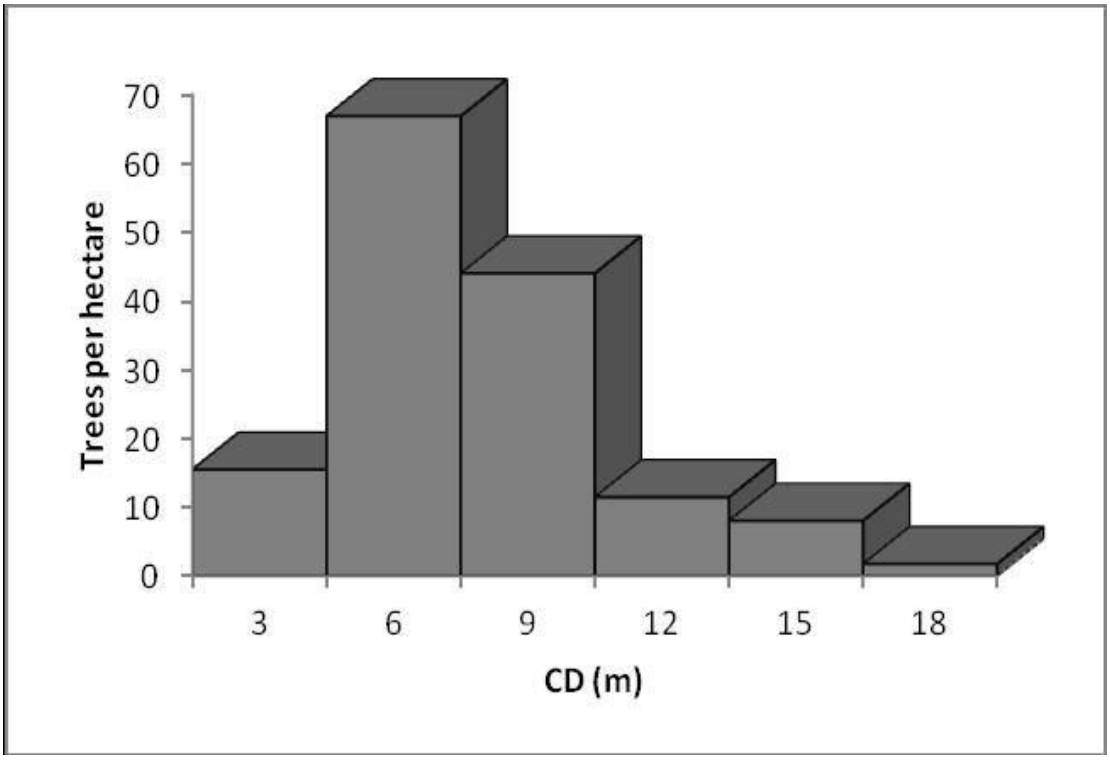

FIGURE 5. CROWN DIAMETER DISTRIBUTION OF TREES SPECIES IN EPPING FOREST SOURCE: FIELD SURVEY, 2023

TABLE 1. SUMMARY STATISTICS ON GROWTH VARIABLES FOR TREE SPECIES IN EPPING FOREST

	DBH (cm)	THT (m)	CH (m)	CD (m)	BA(m^2)
Mean	78.2	19.7	14.9	9.3	0.194
Standard Deviation	12.5	4.7	2.9	3.0	0.067
Minimum	5.7	4.1	2.1	2.1	0.003
Maximum	78.1	28.2	20.1	16.9	0.479

Key: DBH-= Diameter at breast height, THT= Tree Total Height, CH= Crown Height
CD = Crown Diameter and BA = Basal Area
Source: Field survey, 2023

TABLE 2. SUMMARY STATISTICS OF THE FAUNA SPECIES IN EPPING FOREST

FAUNA SPECIES	N	N/Ha	RF(%)	RDo(%)	IVI
Viviparous Lizard (*Zootoca vivipara*)	23	12.7	6.9	6.3	0.054
Barred Grass Snake (*Natrix helvetica*)	9	4.7	2.9	3.0	0.067
Pond Slider (*Trachemys scripta*)	35	4.1	2.1	2.1	0.003
Great Spotted Woodpecker (*Dendrocopos major*)	17	28.2	20.1	16.9	0.479
Green Woodpecker (*Picus viridis*)	23	12.7	6.9	6.3	0.054
Rose-ringed Parakeet (*Psittacula krameri*)	9	4.7	2.9	3.0	0.067
Rock Pigeon (*Columba livia*)	35	4.1	2.1	2.1	0.003
Common Wood-Pigeon (*Columba palumbus*)	17	28.2	20.1	16.9	0.479
Eurasian Coot (*Fulica atra*)	23	12.7	6.9	6.3	0.054
Common Moorhen (*Gallinula chloropus*)	9	4.7	2.9	3.0	0.067
Eurasian Woodcock (*Scolopax rusticola*)	35	4.1	2.1	2.1	0.003
Black-headed Gull (*Chroicocephalus ridibundus*)	17	28.2	20.1	16.9	0.479
Great Crested Grebe (*Podiceps cristatus*)	23	12.7	6.9	6.3	0.054
Grey Heron (*Ardea cinerea*)	9	4.7	2.9	3.0	0.067
Mute Swan (*Cygnus olor*)	35	4.1	2.1	2.1	0.003
Mallard (*Anas platyrhynchos*)	17	28.2	20.1	16.9	0.479
Common Merganser (*Mergus merganser*)	23	12.7	6.9	6.3	0.054
Greylag Goose (*Anser anser*)	9	4.7	2.9	3.0	0.067
Common Pochard (*Aythya ferina*)	35	4.1	2.1	2.1	0.003
Tufted Duck (*Aythya fuligula*)	17	28.2	20.1	16.9	0.479
Canada Goose (*Branta canadensis*)	23	12.7	6.9	6.3	0.054
Mandarin Duck (*Aix galericulata*)	9	4.7	2.9	3.0	0.067
Wood Duck (*Aix sponsa*)	35	4.1	2.1	2.1	0.003

Egyptian Goose (*Alopochen aegyptiaca*)	17	28.2	20.1	16.9	0.479
Ringed Teal (*Callonetta leucophrys*)	23	12.7	6.9	6.3	0.054
Common Buzzard (*Buteo buteo*)	9	4.7	2.9	3.0	0.067
Red Kite (*Milvus milvus*)	35	4.1	2.1	2.1	0.003
Great Cormorant (*Phalacrocorax carbo*)	17	28.2	20.1	16.9	0.479
European Robin (*Erithacus rubecula*)	23	12.7	6.9	6.3	0.054
Great Tit (*Parus major*)	9	4.7	2.9	3.0	0.067
Eurasian Blue Tit (*Cyanistes caeruleus*)	35	4.1	2.1	2.1	0.003

Source: field survey, 2023

TABLE 3. SOCIO-ECONOMIC CHARACTERISTICS OF RESPONDENTS

VARIABLES (*n*= 75)	CATEGORY	FREQUENCY	(%)
Gender	Male	32	42.7
	Female	35	57.3
Age	16-30	11	14.7
	31-45	9	12.0
	46-60	31	41.3
	61-75	20	26.7
	75 and above	4	5.3
Marital status	Single	18	24.0
	Married	32	42.1
	Divorced	25	33.9

Field survey, 2023

TABLE 4. ECOTOURISM ACTIVITIES AND POTENTIALS OF THE STUDY SITE

VARIABLES (*n*= 75)	CATEGORY	YES	(%)	NO	(%)
Ecotourism activities	Horse riding	34	45.3	41	54.7
	Sport fishing	21	28.0	54	72.0
	Canoeing	31	41.3	44	58.7
	Hiking	55	73.3	20	26.7
	Walking	60	80.0	15	20.0
	Cycling	36	48.0	39	52.0
Flora species	Trees	49	65.3	26	34.7
	Shrubs	21	28.0	54	72.0
	Herbs	19	25.3	56	74.7
	Grasses	26	34.7	49	65.3
	Flowers	45	60.0	30	40.0
Fauna species	Birds	48	64.0	27	36.0
	Mammals	19	25.3	56	74.7
	Reptiles	07	9.3	68	90.7
	Pisces	26	34.7	49	65.3

Field survey, 2023

TABLE 5. PERCEPTION ABOUT ECOTOURISM DEVELOPMENT OF EPPING FOREST

VARIABLES (*n*= 75)	YES	(%)	NO	(%)
The sector is safe for the tourists	34	45.3	41	54.7
The activity promotes environmental conservation	21	28.0	54	72.0
The Forest is attractive to tourists	60	80.0	15	20.0
The activity will be successful if the community gets involved	55	73.3	20	26.7
The resources are sustainably utilized	60	80.0	15	20.0
Winter tourism activities are allowed	36	48.0	39	52.0
Hunting is allowed	34	45.3	41	54.7
Tourism allowed to pluck flowers	21	28.0	54	72.0

Field survey, 2023

FIGURE 6. CROWN DIAMETER DISTRIBUTION OF TREES SPECIES IN EPPING FOREST SOURCE: FIELD SURVEY, 2023

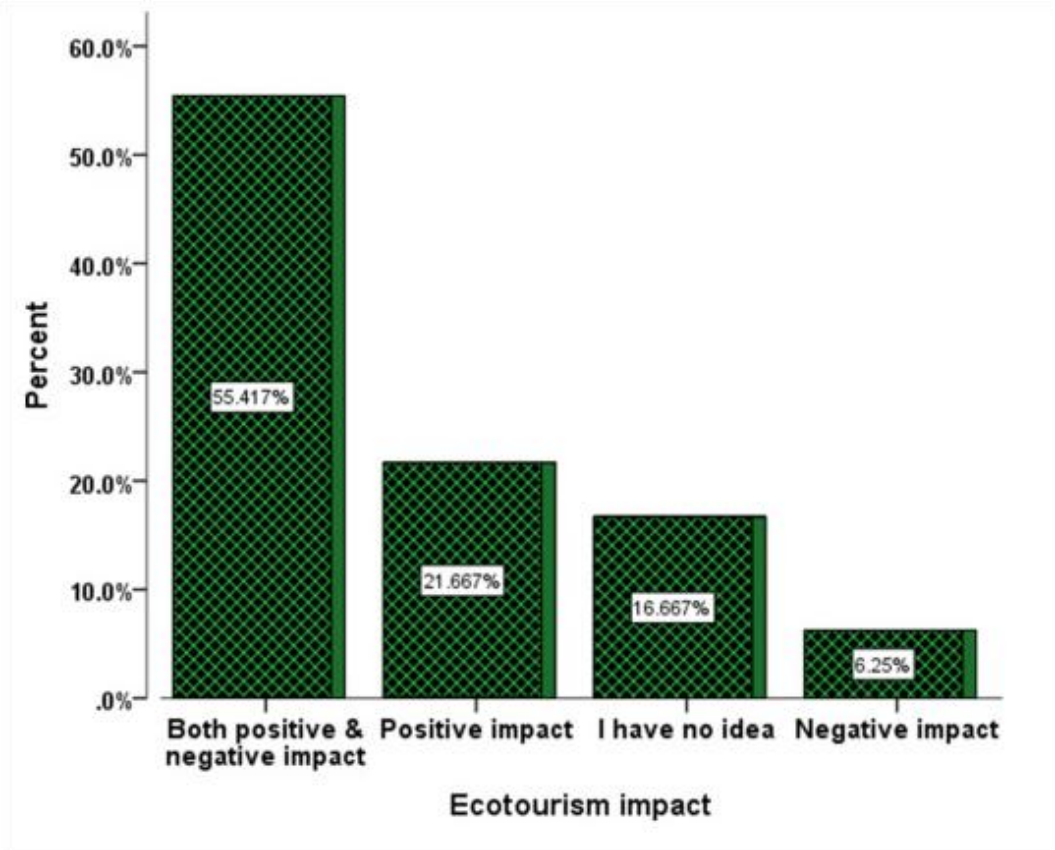

TABLE 5. LOGISTIC REGRESSION DATA GOTTEN FROM THE ANALYSIS OF DATA

VARIABLES (*n*= 75)	*X*	S.E.	*Aβ*	Sig.	Exp. (*X*)
Gender	1.902	2.057	0.006	0.0048**	1.902
Age	-1.4.5	9.374	0.003	0.002*	6.784
Marital status	2.865	6.902	0.001	0.471	2.576
The sector is safe for the tourists	12.872	6.573	0.002	0.002	5.897
The activity promotes environmental conservation	-2.38	0.567	0.006	0.001*	1.894
The Forest is attractive to tourists	2.089	18.462	0.001	0.381	1.567
Hunting is allowed	3.197	1.687	0.009	0.889*	1.687
The resources are sustainably utilized	3.903	4.990	0.004	0.001	1.573
Winter tourism activities are allowed	0.463	8.451	0.001	0.346	1.568
*Sig. p<0.05; **Sig. p<0.05					

Field survey, 2023

DISCUSSION

FLORA SPECIES ASSESSMENT

Tree species' mean values for the growth variables—Diameter at Breast Height (DBH) of 78.2 cm, Tree Total Height (THT) of 19.7 cm, Crown Height (CH) of 14.9 m, Crown Diameter (CD) of 9.3 m, and Basal Area (0.194 m2)—are shown in Figures 3 to 6 and Table 1. On the other hand, Table 2 for woody plants showed a total of 34 species in 19 families, of which one species was unknown. Regarding relative frequency, relative density, species relative dominance, and species value index, like Pedunclate oak (Quercus robur) (p=0.012) was found to be the most abundant species, whereas European beech (Fagus sylvatica) (p=0.031), and silver birch (Betula pendula) (p=0.015), were the least prevalent species.

FAUNA SPECIES ASSESSMENT

Fauna species' mean found within the study area included among many others as describe in Table 2. Common Moorhen (Gallinula chloropus), Eurasian Woodcock (Scolopax rusticola), Black-headed Gull (Chroicocephalus ridibundus), Great Crested Grebe (Podiceps cristatus), Grey Heron (Ardea cinerea), Mute Swan (Cygnus olor), Mallard (Anas platyrhynchos), Common Merganser (Mergus merganser), Greylag Goose (Anser anser), and Common Pochard (Aythya ferina) were observed at the study area.

TOURIST'S KNOWLEDGE AND PERCEPTIONS ON ECOTOURISM DEVELOPMENT

Tourists' understanding of ecotourism and critical resources, as well as their perceptions of Epping's affects (good or negative), were analysed using sampling questionnaires. The research of 75 answers revealed that tourists in Epping Forest and its surrounding landscapes were highly aware of tourism's effects on the environment and livelihoods. The majority of respondents (n= 75) (80.0%) understand what tourism is, and agreed that the resources are sustainably utilized. Ecotourism is defined as visiting and enjoying attractive and beautiful landscapes. Respondents (n= 75) agreed that the activity will be successful if the community gets involved of the respondents (73.3%); natural resources and manmade features that attract tourists by 60 of the respondents (80.0%); natural resources that serve as a source of attraction by 65.3%; and any recreational activity (Horse-riding, Sport fishing, Canoeing, Hiking, Walking, and Cycling) enjoyed by tourists by roughly 55 of the respondents (73.3%).

Almost all respondents (n= 75) (97.1%) praised the introduction of ecotourism that incorporates sustainability at Epping Forest and associated landscapes. However, a lesser minority of respondents (32.1%) said they profit from continued ecotourism and related activities. Of those who responded that they were benefiting, 29% stated collective benefits such as infrastructure and facilities that take into account the conservation of natural ecosystems, and 24% stated safety, for which they wish to compensate society by conserving natural resources.

The rest mentioned recreational possibilities, biodiversity conservation, and other ecotourism-related activities. The majority of respondents (n= 75) (73.3%) stated that they were not frequent visitors to Epping, whereas 90% expressed a desire to continue enjoying ecotourism at the Epping Forest.

CONCLUSION

This study found that Epping Forest and its ecotourism operations are well-planned and implemented in accordance with the ideals of ecological sustainability, community engagement, economic and socio-cultural security. Overall, there was evidence of strong tourist support for ecotourism, as well as decreased ambivalence about participating in and benefiting from Epping's ongoing ecotourism development. Also, the Epping forests contribute significantly to local touristic operations. As a result, local perspectives on ecotourism indicated that determining the resources available and the tourists' willingness to engage in ecotourism before implementing is highly important.

RECOMMENDATIONS

When meeting the standards of ecotourism, the study suggests the following considerations:

1) Increase visitor engagement and provide improved access to ecotourism resources.
2) Protecting the interests of all stakeholders and forming strong and cooperative partnerships among the many stakeholders and decision-makers involved in ecotourism development.
3) Ensuring that more sustainable types of ecotourism are implemented in order to improve ecological resilience and widespread participation. Furthermore, further research is needed on the participants' willingness to participate in ecotourism studies, as well as their awareness of how ecosystems and society interact.

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HEALTH SCIENCE

PAPER – 13

EXPLORING THE LANDSCAPE OF SUPPLEMENT USE AMONG MALDIVIAN ATHLETES

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INTRODUCTION

Supplement use among athletes is a common practice, with a range of factors influencing the prevalence (Wardenaar et al., 2016). These factors include the type of sport, level of competition, and individual definitions of supplements (Garthe and Maughan, 2018). Athletes, driven by the pursuit of peak performance and optimal health, often turn to dietary supplements to augment their training regimens. The landscape of supplement usage among athletes has seen a remarkable surge in popularity. This trend is shaped by a complex interplay of factors, including advancements in sports science, marketing influences, and an evolving understanding of the crucial role nutrition plays in athletic performance. In the Maldives, athletes are no exception to this global trend. Maldivian athletes, ranging from local sports enthusiasts to national competitors, are increasingly incorporating supplements into their training regimes.

The potential benefits of dietary supplements for athletes include enhanced performance, improved recovery from exercise, and the maintenance or improvement of overall health (Knapik et al., 2016). However, it is important to note that supplement use among athletes is not without its challenges and risks (Maughan and Shirreffs, 2012; Garthe and Maughan, 2018). Athletes must be aware of the potential risks associated with supplement use, such as the lack of regulation in the industry, the presence of banned substances, and the potential for adverse health effects (Eichner and Tygart, 2016). It is crucial for athletes to approach supplement use with caution and to seek guidance from qualified professionals, such as registered dietitians or sports nutritionists, who can provide personalized recommendations based on individual needs and goals.

The prevalence of supplement use among athletes varies widely, with some studies reporting rates as high as 74% among adolescent athletes (Peeling et al., 2019; Eck and Byrd-Bredbenner, 2021). The most consumed supplements include multivitamin and mineral preparations, as well as other substances like creatine, herbs, and protein supplements. However, it is important to note that the use of dietary supplements does not necessarily translate to improved athletic performance or health outcomes. In fact, some studies have found that supplement use may not provide significant benefits for athletes without a documented deficiency or specific physiological need.

Furthermore, the decision to use supplements should be accompanied by a thorough understanding of their ingredients, potential interactions with medications, and the importance of maintaining a balanced and varied diet. While supplements can offer benefits when used appropriately, they should not serve as a replacement for a well-rounded and nutritious dietary intake. Additionally, athletes should be mindful of the ethical considerations surrounding supplement use, particularly in competitive sports where the use of performance-enhancing substances is strictly prohibited (WADA, 2021).

The reasons for supplement use among athletes are multifaceted, ranging from the desire to improve performance and recovery to the perceived enhancement of overall health and well-being. In the Maldives, these motivations are especially shaped by the unique challenges and opportunities of the local environment and athletic culture. However, there is currently a lack of substantial data to fully understand the extent of

these influences. This research aims to shed light on the factors affecting supplement use among athletes in the Maldives.

LITERATURE REVIEW

Dietary supplements, defined as products intended to supplement the die, have become an integral part of many athletes' training and nutrition regimens worldwide and the Maldives is no exception (Knapik et al., 2016; Baltazar-Martins et al., 2019). These supplements, ranging from vitamins and minerals to protein powders and ergogenic aids, are used to enhance performance, support recovery, and maintain overall health (National Institutes of Health, 2022). The context of dietary supplement usage among athletes in the Maldives, a nation known for its growing interest in sports and fitness, is relatively under-explored. This literature review aims to consolidate existing research on the usage of dietary supplements among athletes, with a specific focus on the Maldives, while drawing on relevant international studies to provide a comprehensive understanding (Saini and Singh, 2020; Eck and Byrd-Bredbenner, 2021).

The use of supplements among athletes has been a topic of significant interest in the field of sports science and nutrition. The prevalence of supplement use varies widely, with studies reporting that between 40% and 100% of athletes use some form of dietary supplement, depending on the type of sport, level of competition, and the definition of supplements used (Sobal and Marquati, 1994; Knapik et al., 2016; Garthe and Maughan, 2018; Baltazar-Martins et al., 2019). This wide range can be attributed to factors such as sport, level of competition, and the definition of "supplement" used in the studies. Elite athletes have been shown to use supplements more frequently than their collegiate or high school counterparts, and women tend to use supplements more often than men (Sobal and Marquati, 1994). The primary reasons cited by athletes for using supplements are to enhance performance and aid in recovery, although maintaining general health is also a common motivation (Chabaiki, Bekadi and Bechikh, 2020; Saini and Singh, 2020). Competitive athletes often turn to supplements with the primary goal of enhancing their performance or aiding in recovery from intense physical activity (Saini and Singh, 2020).

The global landscape of dietary supplement usage among athletes is characterized by a high prevalence and diversity in types of supplements consumed. Studies have consistently shown that a significant proportion of athletes, across various sports and competitive levels, use dietary supplements. Globally, athletes use dietary supplements for various reasons, including performance enhancement, recovery support, and general health maintenance. Studies reveal that supplement use is prevalent across different levels of athletic participation, from amateur to professional sports. For instance, a study on elite young German athletes found that 80% reported using at least one supplement, with vitamins, minerals, and sports drinks being the most common(Braun et al., 2009). Similarly, research on professional team-sport players in Southeastern Europe highlighted those motivations for supplement use included performance improvement and health maintenance, with self-perceived competence in nutrition playing a significant role (Sekulic et al., 2019). Another study on dietary supplement use among elite Finnish athletes found that the primary motivations were related to improving performance and recovering from intense training sessions (Heikkinen et al., 2011). Additionally, the prevalence of dietary supplement use is influenced by the type of sport, competition level, and access to nutritional knowledge and guidance (Knapik et al., 2016).

In another survey conducted among elite athletes from the United States who attended the summer 2000 Olympics it was found that 83% of male and 87% of female reported using some form of dietary supplement (Grandjean and Ruud, 2003). In the context of the Maldives, limited research has been conducted on the use of dietary supplements among athletes. However, a study by Silva et al. (2010) which examined the supplement practices of 113 national-level athletes in Sri Lanka, a neighboring country to the Maldives, found that 94% of athletes consumed an average of 3. 7 supplements per day (De Silva et al., 2010). This suggests that the use of supplements is also prevalent in the South Asian region, and the Maldives may share similar trends. Literature indicates that the common supplements include protein powders, multivitamins, creatine, and caffeine (Sobal and Marquati, 1994; Garthe and Maughan, 2018).

Regional and cultural differences significantly influence dietary supplement use among athletes, reflecting variations in dietary habits, socioeconomic factors, and cultural beliefs about health and performance.

Studies indicate that in Western countries, supplements are predominantly used for performance enhancement and recovery, driven by a well-established sports nutrition industry and widespread access to information (Grandjean and Ruud, 2003; Garthe and Maughan, 2018). Conversely, in many Asian countries, traditional herbal supplements and remedies are more prevalent, influenced by longstanding cultural practices and holistic health perspectives (Knapik et al., 2016). In the context of the Maldives, these global trends intersect uniquely due to the nation's distinct cultural and economic landscape. The Maldivian diet, heavily reliant on fish and coconut, might lead athletes to supplement with nutrients less prevalent in their traditional food sources, such as vitamins and minerals found in diverse fruits and vegetables more common in other regions (UNDP, 2001). Additionally, the growing tourism industry introduces Maldivian athletes to Western supplement trends, potentially increasing the use of performance-enhancing products. However, limited regulatory oversight and varying levels of nutritional knowledge could pose risks regarding the safety and efficacy of these supplements (WHO, 2019). Understanding these regional and cultural distinctions is crucial for developing tailored education and regulation strategies to ensure safe and effective supplement use among Maldivian athletes.

Literature indicates that, athletes are often motivated by the perceived benefits of supplements, such as enhanced performance, improved recovery times, and overall health maintenance (Grandjean and Ruud, 2003; Maughan, Greenhaff and Hespel, 2011; Attlee et al., 2018). However, the efficacy and safety of many supplements remain subjects of ongoing research and debate. The use of supplements is influenced by various factors including sport type, level of competition, nutritional knowledge, and guidance from coaches and nutritionists (Maughan, Greenhaff and Hespel, 2011; Stadnyk and Parnell, 2011; Djaoudene et al., 2023). The motivations for supplement use among Maldivian athletes align with global trends, primarily centered on performance enhancement and recovery. However, there may be unique factors that influence these practices in the Maldives which needs to be studied for better understanding of athlete behaviour towards the use of supplements. Furthermore, the influence of social media, peer recommendations, and endorsements by international athletes can play a significant role in shaping the choices of Maldivian athletes. This trend underscores the need for targeted education and professional guidance to ensure safe and effective supplement use by Maldivian athletes as there is a notable gap in formal nutritional education and access to professional guidance in the Maldives, which may lead to misuse or overreliance on supplements (need to reference to MYS annual reports). A cross-sectional study among young athletes in Germany revealed that only 36% were aware of supplement contamination risks, underscoring the need for better education on safe supplement use (Braun et al., 2009). This finding is relevant to the Maldives, where the lack of formal nutritional education could exacerbate the risks associated with unsupervised supplement consumption. The desire to improve physical performance and enhance recovery maybe the primary motivation for many athletes, particularly those competing at the elite level, many athletes also use supplements to maintain their health and address specific nutritional needs or support training regimens (Knapik et al., 2016).

The use of dietary supplements is not without its risks (Chabaiki, Bekadi and Bechikh, 2020), primarily due to the lack of stringent regulation and quality control in the supplement industry. Contaminants and additives are common issues; studies have shown that many supplements contain substances not listed on the label, including banned substances or harmful ingredients (Geyer et al., 2004). This poses significant health risks, such as hepatotoxicity, cardiotoxicity, and renal damage, especially with prolonged use or high dosages (Navarro et al., 2017; Navarro, 2019). For instance, supplements containing anabolic steroids or stimulants can lead to serious adverse effects, including liver damage, cardiovascular problems, and hormonal imbalances (Martínez-Sanz et al., 2017). Athletes need to be concerned with excessive use and possible adverse interactions due to polypharmacy, as well as the risk of inadvertent doping due to the inadequate quality control of some dietary supplements (Ziegler et al., 2003; Knapik et al., 2016; Chabaiki, Bekadi and Bechikh, 2020). Supplements may contain banned substances or contaminants that could lead to positive doping tests, resulting in sanctions and damage to the athlete's career and reputation (Chabaiki, Bekadi and Bechikh, 2020). Furthermore, the lack of regulation in the dietary supplement industry means that the safety and efficacy of these products are not always guaranteed (Molinero and Márquez, 2009; Buell et al., 2013).

Serious adverse effects have been reported from the use of some dietary supplements. It is important for athletes who compete in sports under an anti-doping code to be aware that supplement use exposes them to a risk of ingesting banned substances or precursors of prohibited substances, which may lead to serious consequences and affect their eligibility. Athletes who use dietary supplements are exposed to risks such as excessive use, adverse interactions due to polypharmacy, and the potential for inadvertent doping (WADA, 2021). Some dietary supplements may contain banned substances or contaminants that could lead to positive doping tests, resulting in sanctions and damage to the athlete's career and reputation (WADA, 2024).

From the perspective of sports participation, the utilization of dietary supplements presents significant risks to an athlete's career, particularly due to the potential for inadvertent doping. The World Anti-Doping Agency (WADA) enforces a comprehensive list of prohibited substances, and under the strict liability principle, athletes are held accountable for any banned substances detected in their bodies, irrespective of intent (WADA, 2024). This stringent policy aims to uphold the integrity of sport but simultaneously poses a considerable challenge for athletes. The widespread issue of supplement contamination exacerbates the risk of accidental ingestion of banned substances (Van Thuyne, Van Eenoo and Delbeke, 2006; Judkins, Teale and Hall, 2010). Contaminated supplements, which may contain undisclosed or misidentified ingredients, heighten the probability of positive doping tests, leading to severe consequences such as suspensions, disqualification from competitions, and irreversible damage to an athlete's reputation and professional trajectory (Maughan, 2005; Mathews, 2018).

The overreliance on dietary supplements, as opposed to a well-balanced diet and rigorous training, may result in the neglect of essential aspects of athletic preparation. This shift in focus can undermine both performance and long-term athletic development. Supplements should ideally complement, not replace, foundational nutritional and training strategies (Garthe and Ramsbottom, 2020). When athletes prioritize supplements over proper diet and training, they may miss out on the comprehensive benefits of natural nutrition and physical conditioning, ultimately affecting their performance and potential for growth (Maughan, 2005). This imbalance underscores the importance of holistic and well-informed approaches to athletic training and nutrition, ensuring that supplements serve as an adjunct rather than a substitute for essential dietary and exercise regimens.

The regulatory landscape governing dietary supplements exhibits considerable variability across different countries, resulting in inconsistencies and regulatory gaps that can be exploited by manufacturers. In the United States, for instance, dietary supplements are regulated by the Food and Drug Administration (FDA)

under the Dietary Supplement Health and Education Act (DSHEA) of 1994. This act places the responsibility for ensuring the safety and labeling accuracy of dietary supplements on the manufacturers, rather than requiring pre-market approval by the FDA (FDA, 2024). Such a regulatory framework has faced substantial criticism for permitting potentially unsafe products to penetrate the market, thus exposing athletes to significant legal risks associated with supplement use (Cohen, 2014).

The implications of this regulatory approach are multifaceted. First, the potential for athletes to unknowingly consume contaminated or adulterated supplements is heightened, given the lack of rigorous pre-market safety evaluations. This situation is particularly precarious for athletes subject to stringent anti-doping regulations, as inadvertent ingestion of banned substances can result in severe disciplinary actions, including suspensions, fines, and disqualification from competitive events (Maughan et al., 2018). Furthermore, athletes may also confront legal consequences if found in possession of or using substances deemed controlled or banned by sport's governing bodies or national legislation (WADA, 2021). Such findings can lead to not only sports-related sanctions but also broader legal repercussions, including criminal charges or civil penalties, thereby compounding the risks associated with supplement use. This complex regulatory environment underscores the necessity for athletes to exercise caution and due diligence in selecting and consuming dietary supplements. It also highlights the urgent need for enhanced regulatory harmonization and stricter oversight to protect athletes from the inadvertent legal pitfalls and health risks posed by inadequately regulated dietary supplements.

While dietary supplements can offer potential benefits to athletes by enhancing performance, aiding recovery, and filling nutritional gaps, their use is filled with considerable risks that span health, sports participation, and legal domains. The prevalent lack of stringent regulation and quality control in the supplement industry means that athletes are often exposed to products of dubious safety and efficacy, heightening the risk of adverse health effects such as organ damage, hormonal imbalances, and other serious medical conditions (Judkins, Hall and Hoffman, 2007; Judkins, Teale and Hall, 2010). Furthermore, the possibility of inadvertent doping, resulting from the contamination of supplements with banned substances, poses a significant threat to athletes' careers (WADA, 2021). Such incidents can lead to suspensions, disqualifications, and irrevocable damage to reputations, jeopardizing years of hard work and dedication.

The complexity of the legal landscape further complicates the issue. Varying regulatory frameworks across countries creates inconsistencies that can be exploited by unscrupulous manufacturers, leaving athletes vulnerable to legal risks. In jurisdictions like the United States, where the onus of safety and labeling accuracy falls on manufacturers rather than pre-market approval by regulatory bodies, the potential for unsafe products entering the market is particularly high. This regulatory gap necessitates that athletes not only remain vigilant about the supplements they consume but also stay informed about the legal implications of their use, particularly in relation to anti-doping regulations and controlled substances laws.

Given these multifaceted risks, it is imperative for athletes to exercise caution and seek professional guidance when considering the use of dietary supplements. Consulting with sports nutritionists, dietitians, and medical professionals can provide valuable insights and help mitigate the risks associated with supplement use. Additionally, athletes should prioritize obtaining supplements from reputable sources and consider third-party tested products to ensure quality and safety. Ultimately, a well-rounded approach that emphasizes balanced nutrition and evidence-based supplementation, coupled with professional advice and vigilant sourcing, can help athletes navigate the complex landscape of dietary supplements more safely and effectively.

METHODOLOGY

This research used quantitative methodology to encompass a systematic and structured approach, involving the collection, analysis, and interpretation of numerical data to address the outlined research questions. The research instrument employed was a questionnaire, which gathered quantifiable information from a representative sample population. The quantitative phase of the study involved the dissemination of a carefully constructed questionnaire designed to elicit specific information pertinent to supplement usage among athletes. This meticulously developed survey instrument, presented in the form of a Google Form, incorporated a series of targeted inquiries precisely crafted to capture various facets of athletes' supplementation practices. From querying about the frequency and duration of supplement usage to identifying the specific types of supplements favored by athletes, the questionnaire investigated the details of supplement consumption behaviors. In addition, the form also collected basic information about the participants, including gender, age, sport type, duration involved in sport and other relevant information. No personal information was collected on the form. Furthermore, it sought to gauge athletes' awareness and perceptions regarding the potential benefits and risks associated with the use of dietary supplements. By incorporating these distinct questions, the survey undertook to uncover not only the prevalence of supplement usage but also the underlying motivations, beliefs, and attitudes shaping athletes' decisions regarding the use of dietary supplements.

Moreover, the survey administration process prioritizes inclusivity and accessibility, ensuring that athletes from diverse backgrounds and demographics can participate and contribute to the study. Through strategic outreach efforts and collaboration with athletic organizations, coaches, and trainers, researchers endeavor to engage a broad spectrum of athletes, spanning different ages, genders, skill levels, and competitive contexts. This concerted effort to recruit a diverse sample of participants enhances the representativeness and generalizability of the study's findings, allowing researchers to draw robust conclusions that resonate across the broader athletic community. A total of 311 responses were received which was analysed accordingly.

ANALYSIS & RESULTS
GENDER AND AGE

Table 1 shows the representation gender and age of the participants. It is revealed that mostly males (54%) participated in the study compared to females (46%). Furthermore, most of the participants were between 19 – 24 years (32%) followed by 25 – 30 years (24%). Athletes in the age range 16 – 18 years contributed 19% of the population sample.

TABLE 1 – GENDER & AGE REPRESENTATION

TYPE	VARIABLE	N	%
Gender	Male	170	54.0%
	Female	145	46.0%
Age	Under 16	44	14.0%
	16 – 18 years	61	19.4%
	19 – 24 years	101	32.1%
	25 – 30 years	76	24.1%
	31 – 36 years	23	7.3%
	37 – 45 years	3	1.0%
	Over 45 years	7	2.2%

ATHLETE CATEGORIES

Table 2 shows the representation of the different categories of athletes that participated, which includes International Athlete (16%), National Athlete (40%), Club Athlete (28%) and Recreational Athlete (16%).

TABLE 2 – ATHLETE CATEGORIES

TYPE	VARIABLE	N	%
Athlete Category	International	51	16.2%
	National	125	39.7%
	Club	87	27.6%
	Recreational	52	16.5%

SPORTS CATEGORIES

Table 3 below illustrates the distribution of participants to their respective sports. A total of 15 different sports were represented where swimming (25%) contributed to the largest population sample. Swimming was followed by Volleyball (15%), Athletics (8%), Football (7%), Futsal (7%) and Cricket (5%), making the top five sports.

TABLE 3 – SPORTS CATEGORIES

TYPE	VARIABLE	N	%
Types of Sports	Athletics	24	7.6%
	Badminton	15	4.8%
	Basketball	18	5.7%
	Bodybuilding	7	2.2%
	Cricket	17	5.4%
	Football	22	7.0%
	Futsal	23	7.3%
	Handball	9	2.9%
	Judo	5	1.6%
	Netball	15	4.8%
	Shooting	2	0.6%
	Surfing	11	3.5%
	Swimming	78	24.8%
	Table Tennis	7	2.2%
	Taekwondo	8	2.5%
	Volleyball (Beach)	8	2.5%
	Volleyball (Indoor)	46	14.6%

TIME AS AN ATHLETE

Table 4 represents the duration each participant has spent as an athlete in their respective sport. Most of the participants have only been involved in sports between 6 – 10 years (53%) followed by 11 – 15 years (23%). Around 13% of the participants have only been in sports for less than 5 years.

TABLE 4 – DURATION OF BEING INVOLVED IN SPORTS

TYPE	VARIABLE	N	%
Duration in Sports	<5 years	41	13.0%
	6-10 years	167	53.0%
	11-15 years	72	22.9%
	16-20 years	23	7.3%
	21-25 years	0	0%
	Over 25 years	12	3.8%

ATHLETES PRACTICING PATTERNS

Table 5 below indicates the patterns that athletes undertake their training. As the table indicates, 66% of the athletes train 6 days a week. Furthermore, 62% of the athletes have only 1 session per training day. Most of the participants also indicated that their training sessions usually last 2 hours (67%).

TABLE 5 – PRACTICE PATTERN OF THE ATHLETES

TYPE	VARIABLE	N	%
Days per Week	1 day	2	0.6%
	2 days	0	0.0%
	3 days	19	6.0%
	4 days	8	2.5%
	5 days	49	15.6%
	6 days	209	66.3%
	7 days	28	8.9%
Sessions Per Day	1 Session	196	62.2%
	2 Sessions	112	35.6%
	More than 2 Sessions	7	2.2%
Duration Per Session	1 hour	15	4.8%
	2 hours	212	67.3%
	3 hours	70	22.2%
	More than 3 hours	18	5.7%

SUPPLEMENT USE IN SPORTS CAREER

Table 6 below represents the absolute percentage of supplement usage among the athletes that participated in the survey. This number includes all the athletes that have ever used a supplement in their sports career. The results indicate that 52.4% of male athletes and 29.7% of female athletes have used a supplement in their sports career. The results also indicate that male athletes have more tendency to use supplements compared to female athletes.

TABLE 6 – SUPPLEMENT USAGE

TYPE	VARIABLE	N	%
Gender	Male	170	54%
	Female	145	46%
Have used a supplement in sports career	Male	89	52.4%
	Female	43	29.7%
Have never used a supplement	Male	81	47.6%
	Female	102	70.0%

CURRENT USE OF SUPPLEMENT

Table 7 below represents the distribution of athletes who are currently using supplements. This sample analysis is from the number of athletes who have used supplements in their sports career. The figures indicate that currently Male (56.2%) and Female (30.2%) are using supplements. Even in these results it indicates that male athletes tend to continue using supplements than female athletes.

TABLE 7 – CURRENT USE OF SUPPLEMENTS

TYPE	VARIABLE	N	%
Gender	Male	89	67.4%
(Supplements Used)	Female	43	32.6%
Gender	Male	50	56.2%
(Currently Using)	Female	13	30.2%

MAIN REASONS TO USE SUPPLEMENTS

Diagram 1 below indicates the main reasons why athletes are using supplements. Most of them are using supplements to improve athletic performance, followed by enhance recovery, improve overall health, injury prevention and influence from peers/coaches.

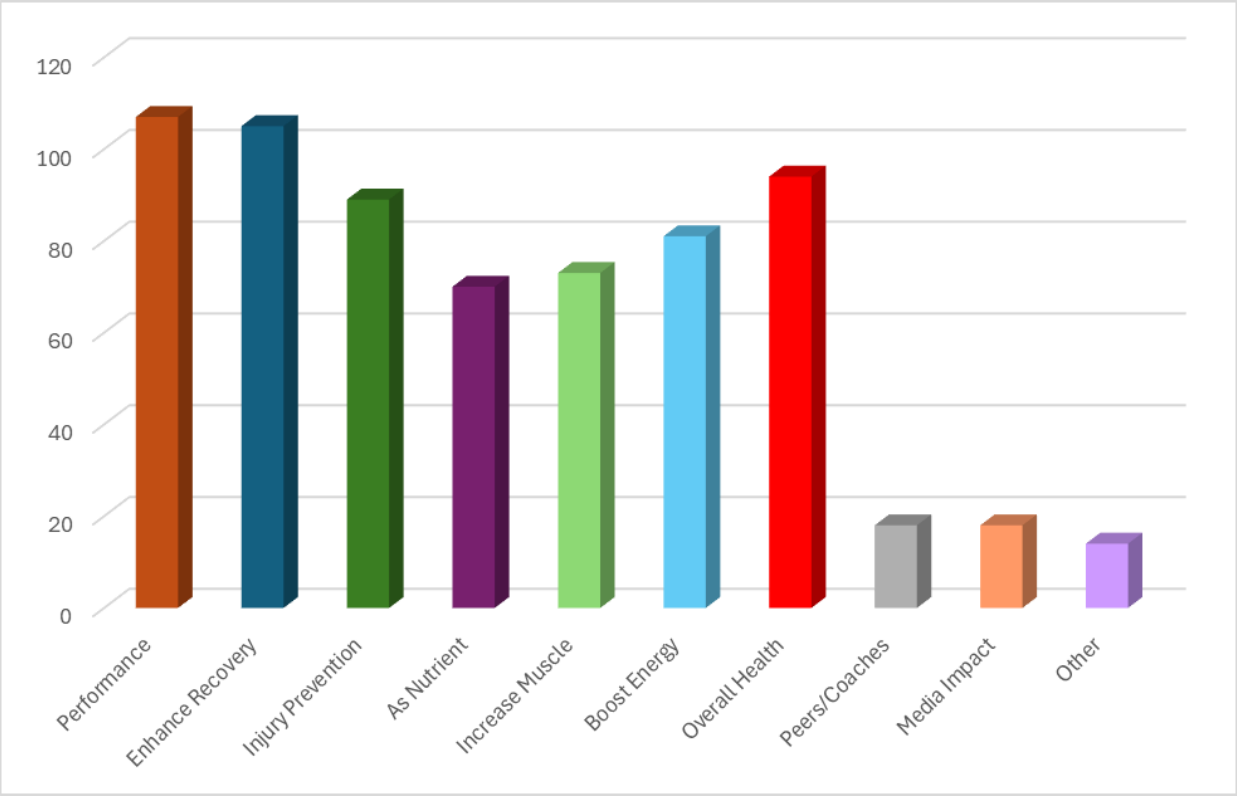


DIAGRAM 1 – MAIN REASONS OF USING SUPPLEMENTS

INFORMED OR NON-INFORMED CHOICE

Table 8 below indicates the distribution on gender based where athletes indicated if they have ever consulted a healthcare professional or a nutritionist before taking a supplement. The results indicate that, out of the athletes that have used a supplement, 75.75% of the athletes (Male = 74.2%, Female = 79.1%) have never consulted a professional before taking a supplement and only 24.25% of the athletes (Male = 74.2%, Female = 79.1%) have consulted a professional before taking a supplement.

TABLE 8 – INFORMED OR NON-INFORMED CHOICE

TYPE	VARIABLE	N	%
Gender	Male	89	67.4%
	Female	43	32.6%
Consulted before taking a supplement	Male	23	25.8%
	Female	9	20.9%
Never consulted anyone before taking a supplement	Male	66	74.2%
	Female	34	79.1%

ATHLETES' BELIEFS AND AWARENESS OF ABOUT USING SUPPLEMENTS

Table 9 below illustrates athletes' beliefs and their awareness of the potential benefits and risks of using supplements. As the table indicates, 44% of Male and 24% of female athletes believe that supplements are good for them. Only 6% of athletes have indicated that they have ever experienced a negative effect after using a supplement. Furthermore, 59.85% of athletes indicate that they are aware of the risks involved in using supplements.

TABLE 9 – ATHLETES BELIEFS AND AWARENESS

TYPE	VARIABLE	NUMBER		%	
		MALE	FEMALE	MALE	FEMALE
Supplements have a positive impact on performance	Yes	44	24	49.44%	55.81%
	No	16	4	17.98%	09.30%
	Not sure	29	15	32.58%	34.88%
Experienced Side Effects from supplements	Yes	5	3	05.62%	06.98%
	No	66	32	74.16%	74.42%
	Not sure	18	8	20.22%	18.61%
Aware of potential risks of using supplements	Yes	59	20	66.29%	46.51%
	No	18	12	20.22%	27.91%
	Not sure	12	11	13.48%	25.58%
Supplements provide a competitive advantage for athletes	Yes	28	19	31.46%	44.19%
	No	38	14	42.70%	32.56%
	Not sure	23	10	25.84%	23.26%

(N = 132, M = 89, F=43)

MEANS OF HOW ATHLETES OBTAIN INFORMATION ABOUT SUPPLEMENTS

Diagram 2 below illustrates how athletes obtain information about supplements. The pie chart indicates that most of the athletes obtain information about supplements via online blogs and articles (23%). Coaches (15%) and social media (15%) are the next major means of obtaining information about supplements.

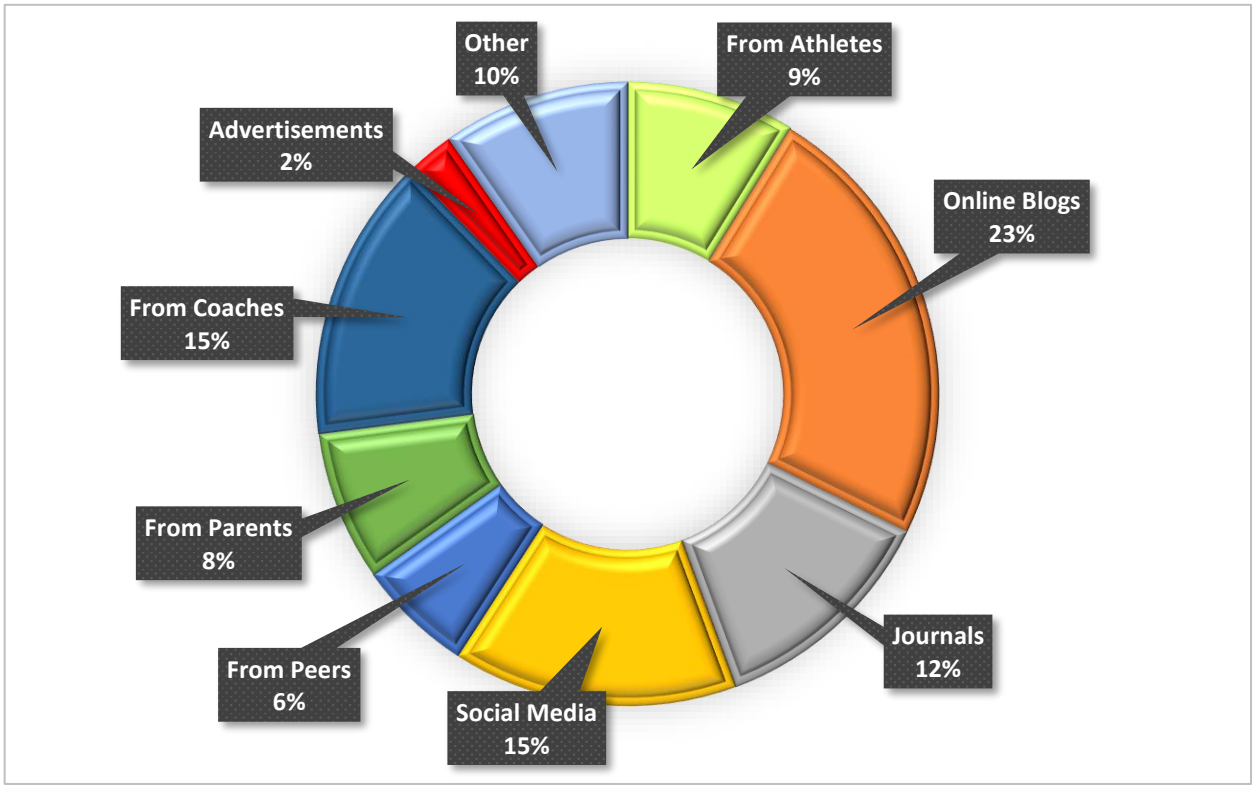


DIAGRAM 2 – METHODS OF HOW ATHLETES OBTAIN INFORMATION ON SUPPLEMENTS

IMPORTANCE OF HAVING THE RIGHT INFORMATION ABOUT SUPPLEMENTS

Table 10 below illustrates how athletes see the importance of receiving the right information about supplements. 48% of the athletes believe it is extremely important to have the right information while 20% of athletes believe it is very important to have the right information about supplements.

TABLE 10 – IMPORTANCE OF HAVING THE RIGHT INFORMATION

s	REASON	N	%
1	Extremely Important	151	47.94
2	Very Important	64	20.32
3	Important	28	8.89
4	Not sure	33	10.47
5	Somewhat important	21	6.67
6	Not Important	18	5.71

INTERESTED IN EDUCATION AND AWARENESS

Table 11 below indicates how athletes responded in receiving education and awareness programs on the safe and effective use of supplements. As per the statistics, 75% of Male and 63% of female athletes are ready to receive the right information on the safe use and effectiveness of supplements.

TABLE 11 – INTERESTED IN EDUCATION AND AWARENESS

TYPE	VARIABLE	NUMBER		%	
		MALE	FEMALE	MALE	FEMALE
Will be interested in receiving education or guidance on safe and effective use of supplements	Yes	127	91	74.71	62.76
	No	5	11	02.94	07.59
	Maybe	24	40	14.12	27.59
	Undecided	14	3	08.23	02.06

(N = 315, M = 170, F=145)

ATHLETES NEEDS MORE EDUCATION ABOUT SUPPLEMENTS USAGE

Table 12 below illustrates how athletes believe that they need more education about supplements usage and its impact on athletes. 87% of male athletes and 88% of female athletes believe that they need more education about supplement usage and its impact on athlete life.

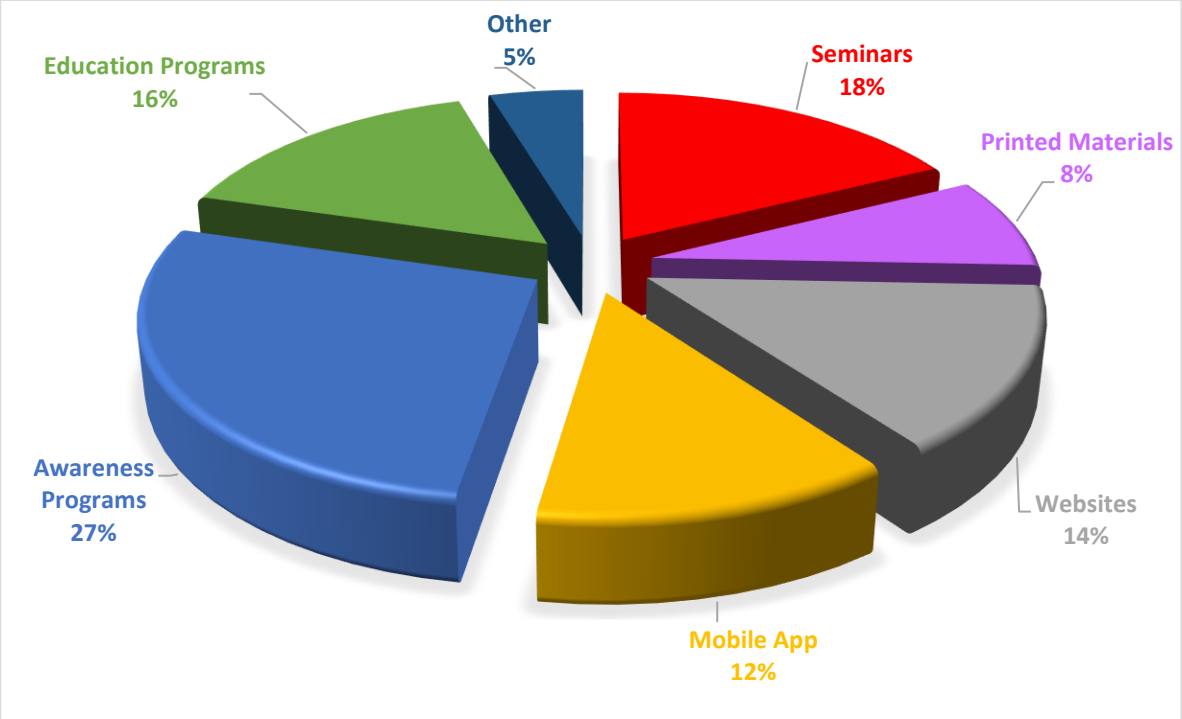
TABLE 12 – IMPROVING AWARENESS

TYPE	VARIABLE	NUMBER		%	
		MALE	FEMALE	MALE	FEMALE
Athletes need more education and awareness on the usage and impact of supplements.	Yes	147	128	86.47	88.27
	No	11	9	06.47	06.21
	Not sure	12	8	07.06	05.52

(N = 315, M = 170, F=145)

WAY OF DISSEMINATING INFORMATION TO ATHLETES

Diagram 3 below illustrates how athletes view the best ways to disseminate and educate them in the use of supplements, their impact and risks involved. As per the pie chart it is seen that athletes believe that awareness programs (27%) are the best way to educate athletes about supplement usage and its impact. Seminars (18%) and Education programs (16%) and websites (14%) are the next best alternatives to disseminate information to athletes on this subject of supplement usage and its impact.



DISCUSSIONS

Supplements usage among athletes is a significant topic that has caught considerable research attention. The demographic analysis of the sample population in this study revealed that 54% of the participants were male. The largest age group bracket in the research fell between 19-24 years which constitutes 32% of the sample. Furthermore, 40% of the athletes fall into the category of national athlete and 53% of the total participants have been engaged in sports between 6 – 10 years. Most of the athletes came from swimming (25%), followed by Indoor Volleyball (15%), athletics (8%), football (75) and futsal (7%). This demographic insight provides a contextual understanding of supplement consumption patterns among athletes and their views.

The use of dietary supplements can be a critical concern in sports and promoting safe and effective use requires a multi-faceted approach. According to various studies, educating athletes on nutrition, creating awareness about the potential benefits and risks of supplements (Maughan, 2013), providing access to professional guidance, and developing targeted programs to enhance natural performance through training and diet are all effective strategies for promoting responsible supplement use (Maughan, 2013; Maughan, Shirreffs and Vernec, 2018; Malsagova et al., 2021). Furthermore, literature also indicated that the coaching and management style significantly impacts athletes' decisions to use supplements (Rukstela et al., 2023). Moreover, good coaching practices that emphasize proper nutrition and training can discourage inappropriate supplement use (Bentley, Mitchell and Backhouse, 2020). Literature also indicates that athletes often turn to supplements due to a lack of adequate nutrition education and the pressure to enhance performance quickly (Dolins et al., 2017). Therefore, sports organizations must focus on integrating nutrition education and support into their coaching programs to encourage athletes to adopt safer and more sustainable approaches to performance enhancement (Garthe and Maughan, 2018; Maughan et al., 2018; Garthe and Ramsbottom, 2020; Arora et al., 2023).

The research highlights a significant prevalence of dietary supplement use among athletes, with evidence suggesting that male athletes are more inclined to use these supplements than their female counterparts. This difference in usage patterns between genders points to a potential influence of gender on supplement consumption habits within athletic communities (Aguilar-Navarro et al., 2021; Eck and Byrd-Bredbenner, 2021). Several factors may contribute to this trend, including variations in athletic goals, body composition, and perceived needs for performance enhancement between male and female athletes (Garthe and Maughan, 2018; Sassone, Muster and Barrack, 2019). For instance, male athletes may experience greater social or competitive pressure to achieve muscularity and endurance, which could drive them toward supplement use to meet these physical expectations (Osterman et al., 2020; Daher, Mallick and El Khoury, 2022). The observed trend also suggests a need for further investigation into how gender-based perceptions and societal expectations influence dietary practices in athletic populations. Understanding the underlying factors of this gender disparity could inform more tailored educational initiatives, helping both male and female athletes make informed decisions about dietary supplements that align with their health and performance goals.

Enhancing athletic performance stands out as the primary reason athletes turn to dietary supplements. A significant portion of athletes report that their supplement use is driven by the desire to improve their abilities and elevate their competitive edge. The rigorous demands of athletic training often push athletes to seek methods that can help them maintain peak physical and mental performance, where supplements are perceived as essential aids in reaching and sustaining high levels of achievement (Garthe and Maughan, 2018; Osterman et al., 2020; Roy et al., 2021). In contrast, the general population tends to consume dietary supplements primarily for health-related reasons, with a lesser emphasis on performance enhancement (Sloan, 2007; Bailey et al., 2011; Perko, Williams and Evans, 2015; Aysin and Urhan, 2021; Mishra et al., 2021, 2023). Research shows that performance-related factors, such as the need for rapid recovery, increased energy, and muscle support, strongly influence athletes' decisions to use supplements (Knapik et al., 2016). Existing studies reinforce this by illustrating how athletes from various sports disciplines prioritize performance-enhancing strategies, including supplements, as part of their training regimen (Maughan et al., 2018).

Recovery from injury is another significant factor driving the use of dietary supplements among athletes. Given the physical demands of sports and the likelihood of injuries, many athletes seek out supplements to support faster recovery and improve resilience (Georgescu et al., 2013; Rawson, Miles and Larson-Meyer, 2018; Hulland, Trakman and Alcock, 2024). The need to return to peak condition as swiftly as possible is critical, and supplements are often seen to help athletes manage inflammation, support muscle repair, and replenish essential nutrients lost during intense physical activity or recovery periods. This reliance on supplements underscores a proactive approach to maintaining performance levels and managing the physical toll of high-intensity sports (Sloan, 2007; Rawson, Miles and Larson-Meyer, 2018). Research consistently highlights that athletes turn to supplements not only to aid in recovery but also to promote overall health and prevent potential injury (Sloan, 2007; Mishra et al., 2021). Studies indicate that protein supplements, amino acids, and other micronutrients such as vitamins and minerals are commonly used for these purposes, as they can support the body's natural healing processes and improve energy restoration. This widespread use for recovery purposes illustrates the critical role that supplements can play in sustaining an athlete's performance and longevity in their sport.

Sports organizations can take proactive steps to support athletes' health by promoting a balanced lifestyle that prioritizes rest, nutrition, and injury prevention. Implementing educational programs focused on safe and effective supplement use can empower athletes to make informed decisions. Additionally, organizations can provide access to nutritionists or sports health professionals who can guide athletes in choosing supplements that genuinely support their recovery needs. By encouraging athletes to use supplements carefully and only under expert supervision, organizations can help minimize unnecessary or potentially harmful use of supplements, ensuring that athletes maintain health and performance without reliance on unneeded substances.

The research findings illustrated that athletes frequently use dietary supplements to support their overall health, making it a notable factor in supplement consumption. While performance enhancement is often a primary focus, an athlete's general health is essential for sustained performance and well-being (Walsh, 2018). This focus on overall health suggests that many athletes may turn to supplements to address perceived gaps in their nutrition or to maintain a robust physical condition amid rigorous training (Walsh, 2018; Yousfi et al., 2020). This tendency reflects an environment where supplements are often viewed as necessary support for general wellness. Athletes may also feel encouraged or even pressured to use supplements due to external influences, such as the guidance of coaches, trainers, or peers, or because of health challenges that require additional support. Research shows that athletes' decisions around supplement use are influenced not only by personal health goals but also by recommendations from support personnel, who play a significant role in shaping attitudes and practices regarding health maintenance (Clancy, 2020). Consequently, sports organizations have a unique opportunity to shape supplement use practices in ways that prioritize athletes' health and safety. To address this, sports organizations should cultivate an environment where athletes receive reliable information and are empowered to make informed choices about their health. Educational initiatives can inform athletes about maintaining a balanced diet, the potential risks and benefits of supplements, and alternatives for overall wellness. By fostering a culture that promotes natural, whole-food nutrition and emphasizes lifestyle factors, such as rest and recovery, organizations can help reduce athletes' reliance on supplements solely for general health (Walsh, 2018; Hulland, Trakman and Alcock, 2024). This approach not only protects athletes' well-being but also encourages habits that support long-term health and resilience.

Another significant finding of the research indicate that athletes often turn to dietary supplements as a preventive measure against sports-related injuries. In high-performance sports, the risk of injury is a constant concern, as rigorous physical demands can strain muscles, joints, and connective tissues, making athletes more vulnerable to both acute injuries and long-term wear and tear (Leppänen et al., 2014; Quintero et al., 2018). Many athletes see supplements as a strategic way to mitigate these risks by fortifying the body against physical stresses associated with intense training and competition. For instance, supplements like omega-3 fatty acids, collagen, and certain vitamins and minerals (such as calcium and vitamin D) are widely recognized for their potential benefits in supporting joint health, reducing inflammation, and promoting bone strength—factors that are crucial in preventing injury (Georgescu et al., 2013; Rawson, Miles and Larson-Meyer, 2018). Furthermore, athletes may use amino acids and protein supplements to maintain muscle integrity and aid in the repair of microtears, which naturally occur during strenuous activities (Bailey et al., 2011; Rawson, Miles and Larson-Meyer, 2018). This proactive use of supplements highlights athletes' focus on maintaining their bodies in optimal condition, even under high physical pressure. Additionally, research has shown that antioxidants like vitamins C and E are popular among athletes for their potential to reduce oxidative stress, which accumulates during intense training sessions and can compromise immune and musculoskeletal health (Bailey et al., 2011; Mishra et al., 2021).

Sports organizations and coaches play a crucial role in shaping athletes' understanding of effective injury prevention. By providing educational resources and access to sports nutritionists, these organizations can ensure athletes have the knowledge and support needed to make informed choices about supplements. Emphasizing injury prevention strategies through proper training techniques, adequate rest, and whole-food nutrition alongside supplements can also help reduce the risk of injuries. Overall, while supplements are often used as a preventative tool, a comprehensive approach that integrates training, recovery, and diet is essential for sustainable injury prevention in sports.

The research findings reveal that a significant motivation for supplement use among athletes is the desire to boost energy levels for enhanced performance in sports. For athletes, maintaining high energy levels is critical to meet the intense physical and mental demands of training and competition (Burke and Read, 1993; Peeling et al., 2019). This constant need for energy has led many athletes to incorporate supplements like caffeine, creatine, and specific B vitamins into their regimens (Burke and Read, 1993; Georgescu et al., 2013). These supplements are popular choices due to their potential to improve endurance, increase alertness, and reduce fatigue, allowing athletes to sustain higher performance levels for longer periods. Caffeine, for

example, is well-documented for its ergogenic effects, helping athletes stay alert and delay the onset of fatigue, making it especially valuable during high-intensity or endurance sports (Sloan, 2007; Mishra et al., 2021, 2023). This inclination toward energy-boosting supplements also highlights the pressures athletes face to meet high-performance standards, where sustained energy and resilience are essential (Maughan et al., 2018; Peeling et al., 2019). However, while these supplements can support energy levels, experts recommend a balanced approach, where athletes also prioritize diet, hydration, and adequate rest as natural energy sources. Sports organizations can support athletes in these efforts by offering guidance on energy management and safe supplement use. Providing access to sports dietitians and encouraging responsible use of supplements can help athletes maintain energy without compromising their health, ultimately fostering sustainable, performance-driven energy practices in sports.

An additional finding from the research reveals that an important reason some athletes choose to use supplements is to increase muscle mass, a goal particularly relevant in sports where strength, power, and physical presence play a significant role. In competitive fields such as weightlifting, bodybuilding, football, and other high-contact sports, maintaining or gaining muscle mass is essential not only for performance but also for resilience against physical impacts and strain (Levers and Vargo, 2015; Moberg, 2017). Supplements like protein powders, amino acids, and creatine are popular choices among athletes focused on muscle gain, as these products are known to support muscle synthesis and recovery after intense workouts (Burke and Read, 1993; Rawson, Miles and Larson-Meyer, 2018). Protein supplements, for instance, supply the body with essential amino acids that are the building blocks of muscle tissue, making them a common post-workout option to optimize recovery and enhance muscle repair. Creatine is another favored supplement for muscle mass development, as it helps increase the availability of adenosine triphosphate (ATP) in muscle cells, providing the energy needed for high-intensity, short-duration exercises that stimulate muscle growth. Additionally, branched-chain amino acids (BCAAs) are widely used to prevent muscle breakdown during prolonged exercise, aiding athletes in retaining muscle mass even during periods of intense training (Sloan, 2007; Bailey et al., 2011; Mishra et al., 2021, 2023).

This trend of supplement use for muscle gain underscores the high expectations athletes face to achieve and maintain specific body compositions that support peak performance in their respective sports. While supplements can effectively support muscle-building goals, sports professionals advise that athletes complement supplement use with high-protein diets, strength training, and proper rest. Sports organizations and coaching teams can play a supportive role by educating athletes on the optimal use of these supplements within a balanced dietary strategy, helping them achieve muscle-building goals safely and sustainably. This approach fosters an understanding of muscle mass development that goes beyond supplements, prioritizing a holistic approach to athletic conditioning and resilience.

The research findings that there is significant usage of supplements among the athletes in Maldives. The findings also indicate that there are significant gaps of knowledge and understanding of the use of supplements. Most of the athletes indicated that they need proper education programs and access to information to understand the impact of using supplements. These findings underscore the need to promote responsible supplement use where sports organizations must foster a culture of education, health awareness, and open communication channels to encourage collaboration between athletes, coaches, and nutritionists, and promote the development of holistic training programs. Cross-functional programs that involve input from nutritionists, trainers, and sports physicians can effectively guide athletes in making informed decisions about supplement use. The findings also indicate that coaches, parents and support personnel should also encourage athletes to seek professional advice and celebrate their natural performance achievements to reduce the over-reliance on supplements. Successful sports organizations with low rates of inappropriate supplement use have implemented education programs that teach coaches and trainers how to provide effective nutrition and training guidance. These programs emphasize creating personalized training regimens based on athletes' physical needs and performance goals, along with efficient dietary planning to optimize results without unnecessary supplementation.

CONCLUSION

This research on supplement use among athletes in the Maldives reveals that athletes are motivated to use supplements for a range of purposes, with primary reasons including performance enhancement, injury recovery, overall health, injury prevention, energy boosting, and muscle mass increase. These findings emphasize the inclusive role of supplements in supporting the physical demands and health goals associated with competitive athletics. As athletes strive to perform at their best, it seems that supplements serve as a tool to help them meet these goals. Performance enhancement, a key motivator, reflects athletes' pursuit of a competitive edge, as supplements are frequently believed to boost endurance, strength, and recovery time. Similarly, injury recovery and injury prevention are major factors for athletes who want to maintain their physical health and minimize time lost to setbacks. Supplements like protein, collagen, and certain vitamins and minerals are often used for these purposes, as they are thought to support tissue repair and reduce inflammation, promoting quicker and more effective recovery from injuries.

Beyond performance and injury-related motivations, athletes also turn to supplements to maintain overall health. Intense training and competition schedules can put strain on the body, leading athletes to use various types of supplements to support immune function, cardiovascular health, and general wellness. Energy-boosting is another important factor, especially given the physical demands and rigorous schedules athletes face. Supplements that offer energy support, such as caffeine, B vitamins, and electrolytes, are commonly used to help sustain energy levels and mental alertness during training or competition. Additionally, for athletes focused on strength and physique, muscle mass increase is a central goal. Supplements such as protein powders, amino acids, and creatine are widely utilized to support muscle growth and recovery, particularly in sports where physical strength is essential. Together, these motivations reveal the layered approach that athletes take to supplement use, aiming to address specific athletic needs, reduce risks of injury, and enhance overall physical resilience.

The study also highlights an important need for structured education and awareness programs to guide athletes in making safe, effective choices about supplement use. Many athletes may lack sufficient knowledge about the appropriate use, potential risks, and long-term impacts of different supplements, potentially leading to misuse or over-reliance. Education initiatives can address these knowledge gaps by providing athletes with credible information on the benefits and risks associated with supplements, as well as guidance on safe usage practices. Such programs could cover areas like quality assurance, understanding supplement ingredients, and recognizing situations where supplements may be unnecessary or even harmful. Furthermore, promoting awareness about natural, whole-food sources of essential nutrients could empower athletes to adopt a balanced dietary approach, reducing dependency on supplements for basic nutritional needs. This information would also encourage athletes to seek professional guidance, such as consulting a nutritionist or sports dietitian, to personalize their supplement use according to their individual needs and goals.

Sports organizations in the Maldives should play a crucial role in fostering a supportive and well-informed environment for athletes. By implementing targeted educational initiatives, these organizations can empower athletes to make informed choices, optimizing their health and performance while minimizing unnecessary reliance on supplements. A balanced approach that prioritizes proper nutrition, rest, and recovery, complemented by supplements only when truly needed, can promote long-term health and peak performance. Through structured education programs, sports organizations can help athletes understand that supplements are only one component of a broader, sustainable approach to athletic training and health maintenance. Ultimately, these insights contribute to a comprehensive understanding of how supplement use can be effectively integrated into a holistic, health-focused athletic practice, offering both immediate performance benefits and long-term health advantages. For athletes in the Maldives, developing this awareness and receiving appropriate guidance will allow them to make well-informed decisions, support their physical resilience, and enhance their overall well-being and career longevity.

RECOMMENDATIONS

Based on the research findings about the use of supplements among athletes in Maldives, a structured approach should be taken to identify the motivations, affiliations for supplement use and promote safe and informed practices. Considering this the following recommendations are provided to address the findings of the research.

1. Develop targeted Education Programs on Supplement Use: The purpose it to equip the athletes with knowledge about supplement use, risks and alternatives. These programs should increase awareness among athletes, enabling them to make safe and effective choices aligned with their personal health and performance goals.
2. Encourage Individualized Nutritional Guidance: The objective is to provide athletes with personalized advice on diet and supplements, reducing blanket reliance on supplements. Under these interventions, athletes receive science-backed recommendations that support specific athletic goals while optimizing nutrition through balanced diets, reducing over-dependence on supplements.
3. Establish Safe Supplement Use Policies and Monitoring System: To ensure the responsible use of supplements among athletes, particularly within competitive contexts. Effective policies will reduce risks of unintended doping violations or health issues arising from unregulated supplement intake.
4. Promote Food-First Philosophy for Health and Recovery: To shift the focus from supplements to whole foods as primary sources of nutrients. Athletes build sustainable dietary habits that support long-term health and recovery without excessive supplement use.
5. Incorporate Training on Injury Prevention and Recovery Techniques: To reduce the reliance on supplements for injury recovery and prevention by focusing on holistic recovery practices. Athletes understand that supplements are one of many tools for injury prevention and recovery, emphasizing a balanced approach.
6. Encourage Responsible Energy Management Practice: To help athletes sustain energy levels safely, reducing dependence on energy-boosting supplements. Enhanced natural energy management among athletes, with supplements used sparingly and as necessary rather than as a primary energy source.
7. Provide Muscle-Building and Strength Training Education: To promote evidence-based practices for muscle growth, reducing the need for high levels of supplementation. Athletes acquire practical knowledge for muscle growth that combines safe training techniques and balanced nutrition, relying on supplements as an adjunct, not a necessity.
8. Encourage Awareness of Supplement Regulations and Testing: To promote compliance with supplement regulations and ensure safe practices. Athletes are better informed about the regulations surrounding supplement use, helping them make safer choices and avoid penalties.
9. Evaluate and Update Educational Programs Regularly: To maintain relevancy and effectiveness of supplement-related guidance. Ongoing adaptation of programs ensures athletes receive the most accurate, up-to-date information to support their goals and health.

IMPLICATIONS FOR SPORTS ORGANIZATIONS AND FUTURE RESEARCH

The findings of this research have several implications for sports organizations, coaches, and policymakers in the Maldives. First, there is an evident need for structured guidance on supplement use to support athletes in making informed decisions. Sports organizations should prioritize the development of educational programs and provide access to qualified nutritionists and dietitians. This would not only enhance athletes' understanding of safe supplement use but also encourage a balanced approach to nutrition and health. By fostering a supportive environment, sports organizations can help athletes maximize their performance potential while safeguarding their health.

Future research could further explore the long-term impact of supplement use among athletes in the Maldives, focusing on health outcomes and career longevity. Investigating athletes' knowledge, attitudes, and behaviors toward supplements over time could provide valuable insights for refining educational initiatives. Additionally, research could assess the role of external influences, such as coaches, peers, and social media, in shaping athletes' decisions around supplement use. Understanding these factors can inform strategies for promoting safe and effective supplement practices within the athletic community in the Maldives.

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PAPER – 14

TREND ANALYSIS OF OUT-OF-POCKET EXPENDITURE IN HEALTHCARE IN NEPAL

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INTRODUCTION

Out of pocket (OOP) expenditure on health care is the main concern in the world. It is one of the factors for the hindrance of health service utilization especially in underdeveloped and developing courtiers. OOP expenditure is the important portion of the national health expenses in many countries and it is the burden to the family of those countries (Xu et al. 2003). World Health Organization (WHO) estimates that every year, on an average 100 million new poor people are pushed into severe poverty due to health expenses (WHO, 2019). Many people having low income delay for the health care seeking that leads to the low utilization of health service and severe health problems (Kruk et.al, 2018). It affects in the achievement of the universal health coverage (UHC). For instance, health expenditure in European countries and found that despite high levels of health insurance coverage, households still incur substantial OOP costs, particularly for pharmaceuticals and dental care. This financial burden often leads to delayed or foregone medical treatments, exacerbating health inequalities (Thomson et al., 2013). Their research underscores the inadequacy of insurance coverage in mitigating financial strain, as copayments and deductibles continue to rise (Banthin & Bernard, 2006). Moreover, the OECD (2019) reported that even in countries with universal healthcare systems, such as Canada and Australia, OOP expenditures account for a notable share of health financing, often driven by gaps in coverage and the need for supplementary insurance.

Nepal is low income country. The GDP was 24.36 billion US dollar in 2015 and increased by 40.91 US dollar in 2023 (WBG, 2024). Government of Nepal had allocated 772 million USD which is 5.8% of total budget in fiscal year 2023/24 (GoN, 2024). Whereas the total percapita income of individual in Nepal is 5181.84 USD. With the comparison of the income the out of pocket expenditure in health is 17% around in world and 51.26 percentage in Nepal (World Bank Group, 2024). It is not only the problem of Nepal there is the same condition of other low income countries. It shows the big gap between world expenditure and Nepali. The study in Bangladesh shows that the non-communicable diseases increase in the OPP subsequently (Rahaman, Gasbarro, & Alam, 2022). This percentage of the OOP hinders in the alleviation of poverty in Nepal. Healthcare financing in Nepal predominantly relies on out-of-pocket (OOP) expenditure, imposing a significant financial burden on households. The main objective of the study is to analyze the out of pocket expenditure of Nepal and finds the associated factors. Nepal is one of the example for the increase in public health expense in south east Asia. There was 0.6% of GDP in 2000 and doubled by (1.2%) in 2016 (GoN, 2018). According to the Asian Bank study on Nepa's national Insurance Program 50% of the health expenditure is out of pocket expenditure in health in 2021 but it was 55.78% in 2000 (Ayer, Tiwari, Jnawali, & Dael, 2024). There is not vast difference in deduction of the OPP by these two decades. The government is making effort for the minimization the OOP. Free basic health policy is implementing and the alternative (Social security and Health Insurance Program) health schemes are also adopted by GoN. Despite efforts to mitigate this financial burden through health insurance programs and government health spending, OOP expenditures remain a critical challenge to achieving universal health coverage (UHC) in Nepal (World Health Organization, 2020). Healthcare financing in Nepal predominantly relies on out-of-pocket (OOP) expenditure, imposing a significant financial burden on households. A substantial portion of the population faces catastrophic health expenditure, defined as spending that exceeds a certain percentage of household income, due to inadequate health insurance coverage and high out-of-pocket costs (Karkee, 2018). According to the World Health Organization (WHO), more than 50% of healthcare financing in Nepal comes from OOP payments, placing an enormous financial burden on individuals and families (WHO, 2019). Research by Pant

et al. (2017) indicates that the high OOP expenses are a major barrier to accessing healthcare, particularly for marginalized and low-income groups. Furthermore, Aryal et al. (2020) highlight that the lack of a robust public healthcare system exacerbates this issue, forcing many to seek care from private providers who often charge exorbitant fees. This situation underscores the need for policy interventions aimed at reducing OOP expenses, improving insurance coverage, and strengthening the public healthcare infrastructure to ensure equitable access to healthcare for all Nepali. This paper analyzes the trends and determinants of OOP expenditure in healthcare over the two decades.

METHODOLOGY

The study was done on the literature review with a narrative review of the research. Secondary data were used to analyze and draw conclusions. The systematic review process and the steps were followed. The paper is prepared by following the systematic review process. The topic articles were from different sources. This review outlines a plan to explore how climate change impacts health in Nepal. The articles are collected from different time frames from databases such as JSTER, Research Gate, PubMed, Nepal Journal Online, Google Scholar, and NCBI. To find the relevant articles keywords "out-of-pocket expenditure", "healthcare financing", "trend analysis", "Nepal", "financial burden", "health insurance" and their combinations are used. Research papers of open sources were abstract to find the study gap and Data from the Nepal Living Standards Survey (NLSS) and the World Health Organization (WHO) Global Health Expenditure Database, this study examines the patterns and magnitudes and impacts of OOP spending on health services in Nepal. This study employs a systematic literature review approach, analyzing data from the NLSS, WHO Global Health Expenditure Database, and several peer-reviewed studies. Data from NLSS provides detailed household-level information on healthcare spending, while the WHO database offers macro-level trends on total health expenditure in Nepal. The review focuses on examining OOP expenditure trends between 2000 and 2020, with specific attention to its distribution across income quintiles.

RESULT AND DISCUSSION

TRENDS

There is a consistent increase in both GDP and OOP expenditure in Nepal from 2000 to 2020. While OOP as a percentage of GDP fluctuates, it reaches its peak between 2013 and 2015 before gradually declining. This suggests that economic growth is helping to reduce the relative burden of healthcare expenses, although OOP remains significant, indicating ongoing challenges in achieving financial protection for healthcare in Nepal.

TABLE 1

Out of pocket expenditure and Gross domestic product in million

FISCAL YEAR	GDP	OOP	PERCENTAGE TO GDP
2000/01	19,071	566	2.97
2001/02	19410	615	3.17
2002/03	20340	642	3.16
2003/04	21694	690	3.18
2004/05	23300	702	3.01
2005/06	25290	672	2.66
2006/07	27525	812	2.95
2007/08	30171	939	3.11
2008/09	38172	1046	2.74
2009/10	45435	1196	2.63
2010/11	51594	1433	2.78
2011/12	56880	1544	2.71
2012/13	60568	2049	3.38
2013/14	69361	2402	3.46
2014/15	73997	2748	3.71
2015/16	77587	2706	3.49
2016/17	91018	2837	3.12
2017/18	103952	3084	2.97
2018/19	116344	3344	2.87
2019/20	128137	3643	2.84

Source: World Bank 2023

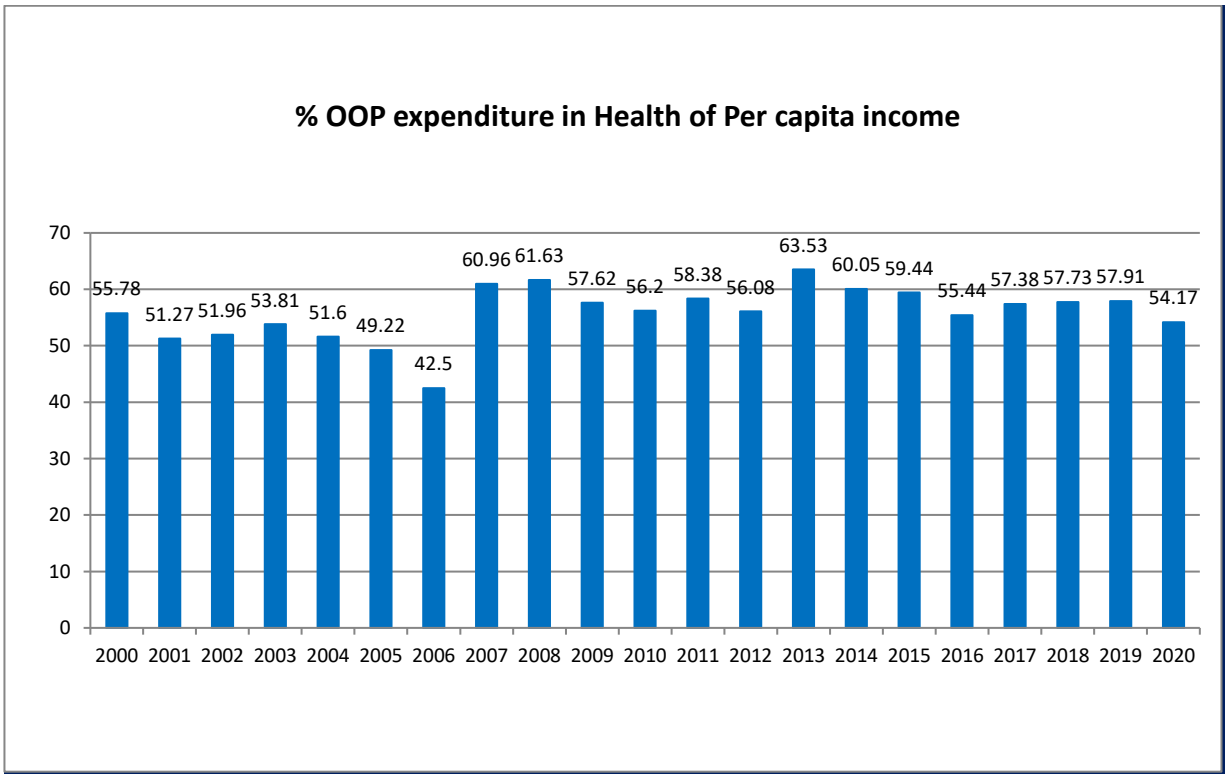
Table 1 revels that the trend of the gross domestic product and the out of pocket expenditure from 2000 to 2020. The table illustrates the trend of out-of-pocket (OOP) health expenditure as a percentage of Nepal's Gross Domestic Product (GDP) from the fiscal year 2000/01 to 2019/20. Over the two decades, Nepal's GDP grew significantly, from NPR 19,071 million in 2000/01 to NPR 128,137 million in 2019/20, indicating strong economic growth. OOP expenditure also increased, rising from NPR 566 million in 2000/01 to NPR 3,643 million in 2019/20. However, the OOP expenditure as a percentage of GDP fluctuated during this period, peaking at 3.71% in 2014/15. Despite an overall increase in absolute OOP expenditure, its percentage relative to GDP showed a slight downward trend in the later years, dropping to 2.84% by 2019/20, reflecting possible improvements in health financing or broader economic growth that outpaced increases in OOP health costs.

The trend in Nepal's OOP health expenditure as a percentage of GDP suggests a mixed outcome in the financial burden borne by households. For much of the period between 2000/01 and 2019/20, the OOP percentage fluctuated between 2.63% and 3.71%, with notable peaks in 2012/13 and 2014/15. This aligns with earlier findings in the literature, which emphasize that health insurance coverage remains low, and OOP costs continue to be a significant financial barrier, especially for poorer households (Bhatt et al., 2020). The

increase in OOP from NPR 566 million in 2000/01 to NPR 3,643 million in 2019/20 indicates a rising demand for healthcare services, but the slight decrease in the OOP percentage towards the end of the period suggests some progress in healthcare financing reform (Adhikari et al., 2018). However, the consistently high OOP percentage of GDP throughout the year's signals that further interventions are needed to reduce household healthcare costs.

FIGURE 1

Out of pocket expenditure in percentage of current health expenditure



Source: WHO, The Global Health Observatory

Figure 1 shows the percentage of OOP expenditure of current health expenditure of Nepal. The

Out of pocket expenditure in percentage The study reveals that OOP expenditure constitutes a substantial portion of total health expenditure in Nepal. Between 2000 and 2020, the share of OOP payments in total health expenditure consistently exceeded 50%, peaking at 63.53% in 2013 and slightly declining to 54.17% in 2020. OOP health expenditure starts at 55.78% in 2000 and experiences a gradual decline, reaching its lowest point in 2006 at 42.5%. This period reflects a significant reduction in household financial burdens for healthcare. Following the decline, there is a steep increase in OOP expenditure, peaking at 61.63% in 2008. This sharp rise could indicate changes in healthcare financing policies or increased healthcare costs. From 2009 to 2014, the expenditure fluctuates between 56.08% and 63.53%, with 2013 marking the highest OOP expenditure at 63.53% during this period. This fluctuation may be associated with ongoing health reforms and varying access to public healthcare services. After 2014, the trend shows a gradual decline, with OOP expenditure dropping to 51.26% by 2021. Although there are small increases in 2017 and 2019, the overall trajectory suggests improved financial protection against healthcare costs towards the end of the observed period. The chart highlights a volatile trend in OOP health expenditure in Nepal over two decades, with significant rises in the mid-2000s and stabilization in recent years, indicating potential improvements in healthcare financing and coverage.

DETERMINANTS

It shows the fluctuation of the health expenditure. The determinants study done approximately, 12% of households incurred catastrophic health expenditure (defined as OOP spending exceeding 10% of total household consumption), and 3% were pushed below the poverty line due to health expenses. Policy interventions aimed at reducing OOP expenditure have shown limited success. Study done in hospital of Nepal in 2017-18 the added cost in medical services, OOP and hospitalization has 164.63, 114.96 and 150.79 dollar in a week. By comparing with the on health care associated infections and antimicrobial resistance in patient add the economic burden (Liu, Shrestha, & Koju, 2022). Important factor includes disparities based on socio-economic status, with age, ethnicity, and place of residence significantly influencing the likelihood of OOP expenditures, as evidenced by analysis of the Nepal Living Standard Survey (Thapa, 2017).Additional studies highlight the catastrophic impact of OOP expenses, particularly for neonatal care, where many households face financial hardship, with some spending as much as 40% of their non-food budget on healthcare (Sunny et al., 2020,). This economic burden affects both rural and urban populations, underscoring the persistent inequities in healthcare access and affordability in Nepal (Adhikari et al., 2018,).

To Minimize the OPP in Nepal fully implementation of the health insurance schemes, the Social Health Security Program (SHSP) mainly the health insurance program were lunched and expansion of free health services have provided some relief, coverage remains low, and implementation challenges persist. With this the interventions the GoN has adopted free basic health services policy (FBHP). Thus, strengthening the health insurance system, and full implementation of the FBHP, increasing government health spending, and ensuring equitable access to quality health services are crucial steps. Additionally, improving financial risk protection mechanisms and expanding the coverage of essential health services without OOP payments are essential to protect households from financial hardship. Thus, reducing OOP expenditure is imperative to enhance financial protection, promote equitable access to healthcare, and achieve universal health coverage. This study contributes to the evidence base needed to inform policy decisions and drive efforts towards a more sustainable and equitable health system in Nepal.

CONCLUSION AND RECOMMENDATIONS

Out of pocket expenditure is fluctuation. Increase in per-capita income and the GDP it is almost slightly fluctuating. Mainly the hospital intended infections, antimicrobial resistant are responsible in increase in OOP whereas the age, sex and the place of the residence are the factors contributing in the OOP.

Policy interventions aimed at reducing OOP expenditure have shown limited success. While the introduction of health insurance schemes, such as the Social Health Security Program (SHSP), and expansion of free health services have provided some relief, coverage remains low, and implementation challenges persist. Thus, strengthening the health insurance system, increasing government health spending, and ensuring equitable access to quality health services are crucial steps. This study contributes to the evidence base needed to inform policy decisions and drive efforts towards a more sustainable and equitable health system in Nepal. There are many queries remaining for the further research on health expenditure and cost.

LIMITATIONS

This paper is developed in limited literatures and it may cover limited information. It just tries the overview the trend of the out of pocket expenditure and small glance of the achievements.

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SOCIOLOGY

PAPER – 15

'GENDER DISPARITY OF WOMEN AT WORKPLACE ISSUES AND CONCERNS' A CASE STUDY OF THE AUTOMOBILE INDUSTRY IN TUMKUR DISTRICT

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Gender Sensitization involves raising awareness of gender equality, gender roles, gender sensitivity, gender diversity, and gender inclusion. It is essential to understand the sensitive needs of the particular gender. It assists us in examining our personal attitudes and beliefs that the realities that we thought we knew. The dimensions of discrimination and stigmatization against girls are rampant and due to fear of abuse, harassment, and exploitation, most of the women/girls remain silent and suppressed without raising their voices. This kind of mindset is inherent in the family itself, even in their society, and continues at the workplace.

The objective of the study is to identify the socio-demographic profile of the respondents. To explore the issues and concerns of gender disparity at workplace. Suggest suitable Intervention Strategies. Research Investigators gathered the primary data through the structured interview schedule and the observation method during the research interview.

Gender inequality in the workplace is an important issue across the global workplace. Some of the most harmful gender inequalities are enacted within human resources practices such as policies, and decision-making, and their enactment affects the hiring, training, pay, and promotion of women. Institutional discrimination in organizational structures, processes, and practices, they also provides a societal context of organizational decision-makers levels of hostile and humiliating sexism.

The outcome of the study: The study outcome depicts that through gender sensitization training sessions reduce gender inequalities and biases in the workplace. In addition to this, it also assists working women to change their mindset and have high self-esteem and pride, decision-making, and speaking out when it is necessary.

Most of the organizations portray gender inequality as a self-reinforcing system that can preserve discrimination. Irrespective of organized and unorganized sectors, gender inequalities exist across the universe. The actual number of cases is likely much higher, as many incidents of violence against women go unreported. One major reason for this is the cultural stigma attached to women who have been victims of violence and stay away from expressing out or seeking help.

Women in India often earn less than men for doing the same work, and they are also under represented in higher-paying jobs. According to the World Inequality Report 2022, Men in India earn 82% of the labor income while the share of women's earnings stands at a mere 18%. Violence against women is a major problem in India. According to the National Crime Records Bureau report, there were over 3, 71, 503 reported cases of violence against women in India in 2020. This includes cases of sexual assault, domestic violence, and other forms of abuse. Here researchers found that there is a big gap and continued gender inequalities across the globe have existed for decades to till today.

(Ksenia Keplinger, September 2022) Researchers find out the sources of stigmatization in connection with the workplace working women stigma at individual, organizational, and societal levels and its impact on

gender inequality at the workplace. The consequences of stigma are long-lasting and encompass all areas of women's lives: from physical and mental health through work commitment and job performance to quality of life. It will be more helpful for the researchers and practitioners to understand the stigma at various levels completely and to formulate better strategies to reduce gender inequalities in the workplace.

(Farha Naz Khan, 2021) Researchers conducted research studies in the hotel industries and identified the major issues with concern to gender bias and discrimination that exist in the hotel industry. Gender bias and discrimination can be reduced through Gender-sensitive HR policies such as male-female ratio, crèche facilities for women with children, maternity leave, transportation facilities, and providing day shift or general shift for women employees and separate women grievance cell to address gender bias-related issues. The research implications are creating a bias-free workplace and adopting a gender-friendly environment for creating gender-sensitive workplaces. Gender sensitivity can further be improved with equal treatment of women and men, providing education on women-friendly policies, equal pay, and no bias in promotion opportunities.

(Poonam Goutham, July 2022) Researchers have done a systematic review and bibliometric analysis and they discovered that the level of gender inclusivity in a country is highly dependent on the country's socio-economic status. The three-field figure illustrates the link between authors, keywords, and sources analyzed terms such as gender, women, and employment which are associated with the most prestigious publications in this field including Gender Work and Organization, and Frontiers in Psychology. As the level of gender inclusivity in a country is highly dependent on the socio-economic status. Gender Inclusion Research in the workplace has been steadily growing in popularity among academics around the world.

(Raquel Fernández, March 2021) International Monetary Fund working paper on Gender Equality and Inclusive Growth depicts that Gender Inequality in economic participation in economic participation restricts the pool of talent in the labour market and can thus lead to a less efficient allocation of resources and hence lower GDP growth. Higher representation of women in banking leadership roles may be associated with greater financial stability, which could be explained by more diversity in executive positions, among other factors. Female labour force participation and employment have increased and the wage gap relative to men has narrowed across all countries. Violence against women can take many forms including sexual harassment and assault, child marriage, female genital mutilation, forced sterilization, and trafficking in women and girls.

(Forum, March 2021) Global Gender Gap Report Outcome depicts that Across the 150 Countries, Women represent only 26.1% of some 35,500 parliament seats and just 22.6% of 3,400 ministers worldwide. In 81 Countries, there has never been a woman head of State, as of 15th January 2021. Gender gaps in educational attainment, health, and survival are nearly closed. Education Attainment, 95% of this gender gap has been closed globally, with 37 countries already at parity. Many of the underdeveloped countries have a greater gender disparity and low educational attainment.

Gender inequality is a predominant issue across the universe in one or the other form of differentiation from organization either in the organized or unorganized sector.

While documenting social casework, the researcher identified the client and family members' confidentiality to maintain social respect and dignity.

CASE DESCRIPTION: CASE INTAKE SHEET

PERSONAL DETAILS

Name: Sumithra

Age: 43 years

Gender: Female

Education: MBA in HRM & Finance

Religion: Hindu

Family type: Nuclear

Address: Panditharahalli village, Dobbaspet, Tumkur District.

(Names of client, and family members have been changed)

TABLE1: FAMILY CONSTELLATION

NAME	RELATIONSHIP	AGE	EDUCATION	OCCUPATION	INCOME	REMARKS
Mohan	Father	65	BA	Accountant	Rs.20,000/-	-
Namita	Mother	57	Illiterate	Housewife	-	-
Mithun	Son	8	3rd Std	Student	-	-
Sumithra	Respondent	43	MBA	Asst. HR Manager	Rs. 45,000/-	Designation and Pay inequality

PROBLEM OF REFERRAL

Lacking promotion and low designation because of gender.

SOURCES OF REFERRAL

Gender Parity Committee External member

STUDY

Respondent is staying with her parents' home as her husband has left her due to family conflict and being the single parent of a child facing psychological stress and frustration in the family. Along with the family issues at home, she also faced hurdles at the workplace. Even though she holds good educational qualifications, she has previous work experience in Human resource management. While doing the performance appraisal, they gave less priority irrespective of her committed and untiring work. They just hired another person for the HR Manager position who is male and provided the reason that females cannot handle the employees in a commendable manner and they could not stay back late in the night. But when they have work during month end while doing salary work she uses to wait for a longer time even though she is at a lower level position. Here the gender factor plays a major role in getting promoted or assigning the designation and pay scale.

Socio-economic & Psychological situation of the family: Her mother is a housewife, she takes care of the respondent's son and her father also supports the family. The Respondent got family support even though her husband left her. Many families won't help these kinds of women during difficult times and not able to manage themselves emotionally. Initially, her parents felt very bad about their daughter's future life, but now they have adjusted to the situation and handled the circumstances positively. It gives a kind of big relief for the respondent. Still, she is facing gender discrimination and bias at the workplace, though not getting recognition for her educational qualifications and industrial experience because of her gender.

CHALLENGES AND OUTCOMES

Challenges faced and outcomes in the workplace are at different levels, sometimes she also faces a few of the males even though they are not performing well, they were getting promoted. It is a major challenge faced by most women and will end up with the outcome of gender disparity.

CASE DESCRIPTION: CASE INTAKE SHEET

PERSONAL DETAILS

Name: Rathnamma

Age: 48 years

Gender: Female

Education: 7th Std.

Religion: Hindu

Family type: Nuclear Family

Address: Hirehalli village, Dobbaspet, Tumkur District.

(Names of client, and family members have been changed)

TABLE1: FAMILY CONSTELLATION

NAME	RELATIONSHIP	AGE	EDUCATION	OCCUPATION	INCOME	REMARKS
Lingesh	Husband	54	Illiterate	Driver	Rs.20,000/-	-
Savitramma	Mother in law	69	Illiterate	Housewife	-	-
Mithun	Son	14	8th Std	Student	-	-
Malini	Daughter	12	6th Std	Student	-	-
Respondent	Self	48	7th Std	House Keeping Supervisor	16000/-	-

PROBLEM OF REFERRAL

Lacking promotion and low designation because of gender.

SOURCES OF REFERRAL

Gender Parity Committee External member

STUDY

Respondent stays with her family in a village, with her mother-in-law, husband, and kids. Her mother-in-law is suffering from chronic illness (Chronic kidney disease), and the respondent needs to do the all household work, taking her mother-in-law to the hospital, school kids admissions, and complete expenses burden will be there for her. At the same time, her husband salary will go for home loan and her salary will go for household expenses and for her mother-in-law medical treatment. Despite all these difficulties, she use to work very hard at home and even at the workplace, they just use to appreciate her work by words. But not in the form of her designation and payscale, many a times she use to cry a lot in wash room as she is not getting the recognition in the form of promotion or payscale. Even her home socio-economic conditions also worsen, as she sending her kids to her company's CSR School, she is saving her salary.

CHALLENGES AND OUTCOMES

Challenges faced and outcomes in the workplace are at different levels. Few of the males they are seeking sexual favours too, we will give you money it will be useful for your mother in law medical treatment and they request for sexual favours. Sometimes she also faces a few of the males even though they are not performing well, they were getting promoted and their salary is increasing. It is a major challenge faced by most women and will end up with the outcome of gender disparity even though they are potential in all the ways. Many of the women suffer silently due to their socio-economic difficult circumstances. It is the major reason for her low self-esteem and confidence deterioration.

RESULTS AND DISCUSSIONS

Previous study of Ksenia Keplinger and coauthors in 2022 find out the sources of stigmatization in connection with the workplace working women stigma at individual, organizational, and societal levels and its impact on gender inequality at the workplace. The consequences of stigma are long-lasting and encompass all areas of women's lives: from physical and mental health through work commitment and job performance to quality of life. The same kind of inequalities and stigmatization existing in most of the organization. In the same way in our case study of automobile industry evidently shows the same results. Both the cases, both the women are facing same kind of stigma and inequality in the form of their designation, promotion, payscale and one of the women facing sexual harassment too.

Farha Naz Khan and fellow researchers conducted research studies in the hotel industries in 2021 and identified the major issues with concern to gender bias and discrimination that exist in the hotel industry. Gender bias and discrimination can be reduced through Gender-sensitive HR policies such as male-female ratio, crèche facilities for women with children, maternity leave, transportation facilities, and providing day shift or general shift for women employees and separate women grievance cell to address gender bias-related issues. The research implications are creating a bias-free workplace and adopting a gender-friendly environment for creating gender-sensitive workplaces. To avoid this kind of stigmatization and inequalities at the workplace they suggested Gender-sensitive HR Policies, Gender Inclusive policy, women related welfare facilities to encourage women workforce. As they mentioned in their study gender bias and discrimination at the workplace is existing in the hotel industry and in the present study depicts that in automobile industry also they are facing the same gender bias and discrimination.

Poonam Goutham and other researchers in 2022, have done a systematic review and bibliometric analysis and they discovered that the level of gender inclusivity in a country is highly dependent on the country's socio-economic status. As the level of gender inclusivity in a country is highly dependent on the socio-economic status. Gender Inclusion Research in the workplace has been steadily growing in popularity among academics around the world. Even in reviewed bibliometric analysis they found the gender inequalities and stigmatization or discrimination across the universe. Even in our present study also find the evidence of gender inequalities and discrimination in automobile industry.

Raquel Fernandez in 2021 worked on International Monetary Fund working paper on Gender Equality and Inclusive Growth depicts that Gender Inequality in economic participation in economic participation restricts the pool of talent in the labour market and can thus lead to a less efficient allocation of resources and hence lower GDP growth. Female labour force participation and employment have increased and the wage gap relative to men has narrowed across all countries. Violence against women can take many forms including sexual harassment and assault, child marriage, female genital mutilation, forced sterilization, and trafficking in women and girls. IMF working paper also mentioned about the gender bias and inequalities, it has reflected in the present study.

Global Gender Gap Report of 2021 Outcome depicts that Across the 150 Countries, Women represent only 26.1% of some 35,500 parliament seats and just 22.6% of 3,400 ministers worldwide. In 81 Countries, there has never been a woman head of State, as of 15th January 2021. Gender gaps in educational attainment, health, and survival are nearly closed. Education Attainment, 95% of this gender gap has been closed globally, with 37 countries already at parity. Many of the underdeveloped countries have a greater gender disparity

and low educational attainment. In this study they mentioned about education, health and survival will reduce the gender bias and inequalities.

Overall previous study results clearly shows the significance of gender bias, discrimination and stigmatization as we seen in our present study also show the same results even sexual harassment also from the fellow colleagues to working women. So it is much needed to address the issue of gender discrimination, bias, stigmatization and all form of gender inequalities to reduce the gender disparity across the universe.

SOCIAL WORK INTERVENTIONS

Social workers plays major role in reducing the gender disparity through various interventions as mentioned below.

1. **GENDER PARITY COMMITTEE**
   In most of the companies, they don't have separate gender parity committee to protect women from any kind of gender inequalities. In the current study carried out in the automobile industry have Gender Parity Committee of internal and external women, it was not actively functioning. It is much needed to make mandatorily formulating Gender Parity Committee to prevent Gender Disparity.
2. **GENDER SENSITIZATION PROGRAMS**
   In each company they need to conduct gender sensitization programs to reduce gender parities and know about their rights and entitlements, gender sensitivity, gender inclusion, gender welfare measures need to be addressed during the gender sensitization programs. Through these sensitization sessions, women will come to know their rights and entitlements at the workplace, it will help them to seek justice at the workplace.
3. **GENDER-SENSITIVE HR POLICIES**
   It is important for the company to formulate and implement gender-sensitive HR Policies such as providing crèche, and maternity benefits not removing any female employee during her pregnancy with any intentional removal from a job, promotion, designation and pay scale hike to female employees too is much needed. Most of the companies for higher level jobs such as Director, CEO, and Vice President will be given to only male employees even though women employees were performing in high standards and irrespective of having higher educational qualifications.
4. **LIFE SKILL EDUCATION**
   Most of the women employees at the workplace, won't speak up even though they are undergoing any difficulties, workplace harassment, discrimination, or gender disparity due to losing their job if they raise their voice. This kind of mindset will be changed if they undergo life skill education it will empower them to know the importance of individual dignity and worth, boost self-esteem, self-determination, decision making, problem-solving, critical thinking, creative and innovative thinking, and mainly it helps them to handle the situations.
5. **CONFLICT RESOLUTION STRATEGIES**
   Usually, in most companies women and men have conflicts and the work they do, they just give the reason that women can't do the work till late at night and are not able to address the issues of a large number of employees in any organization. These are the major issues that lead to conflict among the employees and while handling the difficult circumstances they have wrong notions that women employees are incapable of doing so. It leads to conflicts, it can be resolved through negotiations and formulation and implementation of gender-just policies.

6. **GENDER-INCLUSIVE POLICIES**

   In any company, equal representation of women's workforce requires mandatory gender-inclusive policies. Gender HR inclusive Policies, aim to promote equality and non-discrimination within the working environment helping to feel valued and supported irrespective of gender. It leads to unawareness of gender bias unconsciously and brings back in achieving equality and social justice. Now most of companies hire women employees as they were come to work regularly without absence and don't quit for higher-level hike jobs as male employees move away.

Above mentioned are the few ways we can use it as preventive, prohibitive, and redressal measures to overcome from gender inequalities, social exclusion, stigma, and social discrimination in the workplace. Through proper social work intervention, we can bring back gender justice, inclusion, and social justice.

CONCLUSION

Overall impact of the gender disparity and discrimination on women is continuously blooming across the industries from various sectors. In this perspective, academicians, researchers and the top level management of the industries, should keenly look into resolve the disparity and discrimination issues. the researcher did the case studies in the automobile industry and found that there is a greater way of gender payment disparity and gender discrimination irrespective of specified educational qualification and experienced females, they give priority to males for the higher level positions including higher level payscales. In addition to this, they have to work hard during salary time.

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TECHNOLOGY

PAPER – 16

THE IMPACT OF FINTECH - BASED SOLUTIONS ON CUSTOMER EXPERIENCE IN THE STATE-OWNED INSURANCE COMPANY OF MALDIVES

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CHAPTER 1 - INTRODUCTION

MOTIVATION

The global financial crisis of 2008 led to a steep decline in trust in traditional financial institutions, giving way to the emergence of Fintech (Bian et al. 2023).

Emerging technologies and innovative business models through Fintech have the capability to revolutionise the insurance sector. These innovations are being driven by both traditional insurance companies and new startups known as "Insurtech".

Insurtech is a subset of Fintech, used to describe the use of technology in the insurance sector.

BACKGROUND

The Maldives is the smallest Asian country by landmass. The insurance industry in the Maldives is regulated by the Maldives Monetary Authority (MMA). The insurance industry regulation of 2004 outlines the insurance guidelines and other regulatory requirements.

When talking about insurance, to many Maldivians the first thing that comes to mind would be Aasandha - which is medical insurance provided by the government. Other forms of insurance that Maldivians would be familiar with include vehicle and fire, however instruments like life insurance and natural disaster insurance remain relatively unknown (Maldives Financial Review 2022).

TARGETED INSTITUTION

The insurance industry in the Maldives consists of 5 insurance companies, 10 insurance brokers, and 60 insurance agents. Allied Insurance is the largest insurance company in the Maldives, and the only one with state shares.

They were established in the Maldives in 1985, as a joint venture between the State Trading Organisation (STO) and Commercial Union Assurance Company of the United Kingdom. STO bought back shares during the early years and continued to grow the company with local management. Now, they are the market leader in the Maldivian insurance sector and provide the most types of insurance. (State Trading Organization Plc n.d.)

PROBLEM STATEMENT

Due to the unique challenges faced by the Maldives as an island nation, Insurtech solutions are both necessary and promising. The ever increasing demand for digital services, the geography of the country (being one of the most widespread in the world with over 1200 islands), and vulnerability to climate change are some of the most unique challenges faced by Maldivians.

Most Insurtech efforts in the Maldives are centred around digital transformations headed by private companies and government initiatives. Customers can mostly buy, manage and put in claims on their policies through websites and apps developed by their insurance company. This is very beneficial to customers living on rural islands, as physical access to a branch would be difficult and costly.

RESEARCH PURPOSE AND MODALITIES

The impact of Fintech-based solutions on customer experience in the Maldivian insurance market is addressed by this research. Given how swiftly the insurance sector is going digital, this study is highly timely because there is little to no publicly available research on the subject.

The research aims and objectives of this study are:

1. To identify the impact of the Fintech based solution on customer experience in the insurance sector of the Maldives
2. To understand the relationship between Fintech channels and tools and the customer experience in the insurance sector of the Maldives.

To meet the aims, empirical evidence was collected and studies were performed to examine the strengths of the correlations among the variables.

CHAPTER 2 - LITERATURE REVIEW
INTRODUCTION

Fintech in the insurance industry, also known as InsurTech provides solutions for a number of insurance and financial services, including payments, buying new policies, managing existing ones, and many more. This is an area of incredible growth, with more products being added to its offerings with each passing year.

WHAT IS INSURTECH?

Unlike the direct competition between Fintech firms and traditional institutions, Insurtech is mostly characterised by the emergence of super-digital distributors. Over 50% of Insurtech deals go back to insurance distributors or brokers, which reiterates the differences between Insurtech and fintech firms and traditional lending institutions (Bian et al. 2023).

InsurTech has helped to transform the insurance sector by playing an important role in using new data sources to create solutions and leveraging technology to cater to business and customer needs (Sosa and Montes 2022).

And while InsurTech is usually known as an offshoot of Fintech, it is increasingly becoming autonomous. Today, InsurTech uses technology such as AI and blockchain to improve the insurance sector (Cosma and Rimo 2024).

CUSTOMER EXPERIENCE IN THE INSURANCE INDUSTRY

In order to understand the value of customer experience in insurance, McKinsey launched a survey across customers of the 40 largest North American insurance providers. The results indicated that customer experience is “a strong predictor and driver of financial and organisational outcomes”. Customers have come to expect a personalised service, due to the world’s increasing digitalisation (McKinsey & Company 2023).

Customer experience can affect a customer’s decision to continue using the service as it is the result of the customer’s perception of the company based on the interactions that they have had. As such, companies in the finance industry, including insurance, try to build sustainable relationships with their customers (Tobing and Yuliati 2022). This is especially important because the insurance does not often provide goods in a physical form, which means customers may need that extra assurance.

EXISTING LITERATURE

Initially, in the financial sector startups were mostly Fintech firms focusing on the banking and finance sector. InsurTech lagged behind however has picked up the pace substantially in the past few years. In 2011, the global funding volume for InsurTech was USD 140 million, but in 2016 it was USD 1.7 billion. However, there have been little innovations that were explosive in nature, with many startups simply continuing industry standards such as increased digitalisation or e-commerce (Braun and Schreiber 2017).

However, according to (Liu et al. 2023), the insurance industry has a low level of customer satisfaction and a low level of digital integration. Developing InsurTech may help the traditional insurance industry in more ways than one; by facilitating insurance companies into integrating their existing resources and alleviating their financing difficulties.

InsurTech uses data analytics and AI to analyse customer behaviour and preferences to make personalised products to fit their customers' needs. Traditional insurance policies suffer from a one size fits all approach, which no longer meet the demands of today's customers. For example, some insurance companies are adopting usage based insurance models, which allow them to offer policies based on usage instead of fixed premiums (Protonbits 2024). Furthermore, technology can help firms' process insurance claims faster, which is one of the things that can negatively or positively impact customer experience.

On the other hand, due to this digitalisation, customers may have concerns about the privacy of their data, or find it difficult to understand the policies listed on the website or app, if the proper language is not used.

IMPACT OF FINTECH BASED SOLUTIONS AND CHANNELS AND TOOLS

In the context of the Maldivian insurance sector, most Fintech or InsurTech based solutions come in the form of a website or mobile application in which customers can view, modify, apply and inquire about different insurance policies.

The InsurTech sector of the Maldives is still fledgling, and regulators are coming up with new laws as things progress. When compared to western countries, the Maldives still has much room to improve and grow. It is also important to consider why adoption of InsurTech may not work in the Maldives.

The mode in which the service is delivered, and communications take place through an Insurtech solution refers to Fintech channels and tools in this research paper.

Some complaints that people have about the applications are that the language used to word the policies are difficult to understand, it is difficult to reach a human through the chat box when you have an inquiry, and it is unclear on how to make a claim on your policy.

As such, the hypothesis to be tested is:

There is no significant relationship between customer experience and Fintech based solutions, channels and tools in the insurance sector of the Maldives.

CHAPTER 3 - METHODOLOGY

INTRODUCTION

When creating a methodology, it is important to determine the goals and purpose for this study, and who will benefit from it. The methodology should accurately reflect the environment in which the study was conducted.

RESEARCH PARADIGM

Due to the quantitative nature of this study, the research takes a positivist approach. Positivist researchers typically start with theories and models, then isolate specific variables for investigation and predict how they interact by developing hypotheses that are then tested (Turner 2001).

In a positivist research study, researchers collect and interpret data in a factual and objective way. Researchers cannot allow their own views or biases while conducting the study. The researcher must be independent from their research and have a degree of separation from the people participating in the research. As a philosophy, positivism is that only knowledge that is factual and gained through observation can be trusted (Business Research Methodology, n.d.).

POPULATION OF THE STUDY AND SAMPLE SIZE

The population of this study consists of customers from Allied Insurance. As of 2018, they had a customer base of almost 40,000, consisting of 20% personal customers and 80% corporate clients (PSM 2018).

SAMPLING TECHNIQUE

Sampling is the selection of a subset of the population of interest in a research study. In the majority of cases, surveying an entire population is not possible so a smaller group is relied on to collect data. Sampling from the population is more practical and lower cost than attempting to survey every member of the population (Turner 2020).

For this study, the chosen technique is simple random sampling. Simple random sampling is often selected for populations that are highly homogenous with randomly selected members. This method is often used in quantitative research and surveys/questionnaires. It is an impartial method that allows everyone in the population the chance to be selected (Noor, Tajik, and Golzar 2022).

DATA COLLECTION PROCEDURES

The data collection method used for this research was a survey, due to the ease in which data can be collected and analysed. This questionnaire was distributed amongst Allied Insurance customers using google forms. Primary data collection procedures were followed, and a type of psychometric response scale was used to make the survey questions. Secondary sources of data included journal articles and books.

CHAPTER 4 - RESEARCH FINDINGS

DATA SCREENING

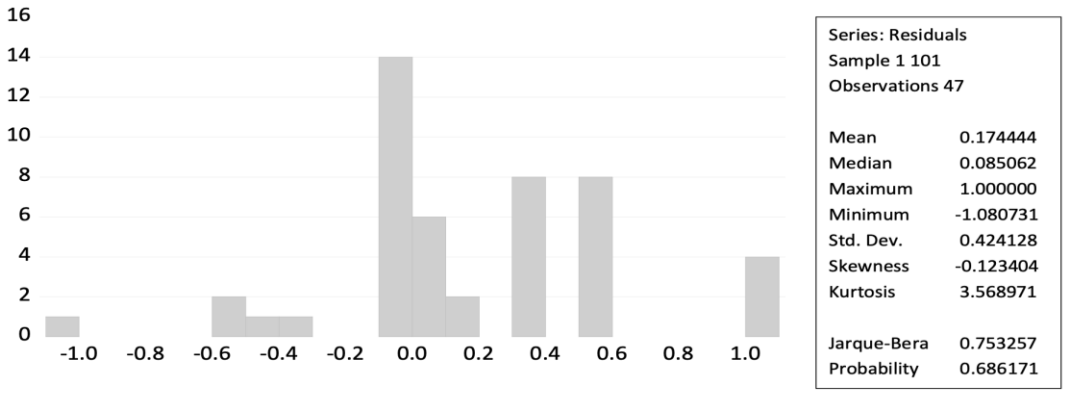
In the data analysis, firstly, a correlation test was conducted. If there are independent variables that have high correlation it will give biased estimates. Some statistical programs also do not run equations if high multicollinearity is detected.

Correlation

	DVSATISFIEDFINTEC	AGE	GENDER	INSURANCE	APPWEBS	APPLYONLINE
DVSATISFIEDF	1.000000	-0.203701	0.025534	-0.128654	-0.085960	NA
AGE	-0.203701	1.000000	-0.211702	-0.173333	-0.115813	NA
GENDER	0.025534	-0.211702	1.000000	-0.116436	-0.077797	NA
INSURANCE	-0.128654	-0.173333	-0.116436	1.000000	0.391983	NA
APPWEBS	-0.085960	-0.115813	-0.077797	0.391983	1.000000	NA
APPLYONLINE	NA	NA	NA	NA	NA	NA
MANAGEONLI	NA	NA	NA	NA	NA	NA
PAYONLINE	-0.068966	0.128654	0.289385	-0.128654	-0.085960	NA
NOTIFICATIONS	NA	NA	NA	NA	NA	NA
FRIENDLYUI	NA	NA	NA	NA	NA	NA
FINTECHPRO	NA	NA	NA	NA	NA	NA
FINTECHVITAL	NA	NA	NA	NA	NA	NA
RELATIONSHIP	NA	NA	NA	NA	NA	NA
SATISFIEDCO	-0.047946	0.089443	0.201187	-0.089443	-0.059761	NA
SATISFYWITH	NA	NA	NA	NA	NA	NA
SATISIFEDMA	-0.047946	0.089443	0.201187	-0.089443	-0.059761	NA
STATECOMPA	0.079674	-0.319279	0.139846	0.148630	-0.014712	NA

	MANAGEONLINE	PAYONLINE	NOTIFICATIONS	FRIENDLYUI	FINTECHPRODUCTIVI	FINTECHVITAL
DVSATISFIEDF	NA	-0.068966	NA	NA	NA	NA
AGE	NA	0.128654	NA	NA	NA	NA
GENDER	NA	0.289385	NA	NA	NA	NA
INSURANCE	NA	-0.128654	NA	NA	NA	NA
APPWEBS	NA	-0.085960	NA	NA	NA	NA
APPLYONLINE	NA	NA	NA	NA	NA	NA
MANAGEONLI	NA	NA	NA	NA	NA	NA
PAYONLINE	NA	1.000000	NA	NA	NA	NA
NOTIFICATIONS	NA	NA	NA	NA	NA	NA
FRIENDLYUI	NA	NA	NA	NA	NA	NA
FINTECHPRO	NA	NA	NA	NA	NA	NA
FINTECHVITAL	NA	NA	NA	NA	NA	NA
RELATIONSHIP	NA	NA	NA	NA	NA	NA
SATISFIEDCO	NA	0.695222	NA	NA	NA	NA
SATISFYWITH	NA	NA	NA	NA	NA	NA
SATISIFEDMA	NA	0.695222	NA	NA	NA	NA
STATECOMPA	NA	0.079674	NA	NA	NA	NA

In the normality test, a normal distribution test was done using histogram method. The residuals appear to be reasonably normally distributed given the Jarque-Bera test result and the relatively low skewness and kurtosis values (See table 1).



The results of the first regression analysis show that when the regression was run only the notification variable is significant in impacting the satisfaction of fintech experience (as dependent variable). Notification is significant with p values less than 5 percent.

The coefficient 0.95 is highly significant (p-value 0.00), indicating that notifications substantially enhance customer satisfaction with fintech services. This is a key finding suggesting the importance of notifications in improving user experience.

R-squared: The R-squared value of 0.691389 0.691389 indicates that approximately 69.14% of the variance in the dependent variable is explained by the independent variables. This suggests a reasonably good model fit.

Dependent Variable: DVSATISFIEDFINTECHSERVICE
Method: Least Squares
Date: 09/29/24 Time: 12:14
Sample (adjusted): 1 101
Included observations: 43 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
AGE	-0.057394	0.092028	-0.623660	0.5373
GENDER	-0.020481	0.084916	-0.241187	0.8109
APPWEBS	-0.028446	0.157443	-0.180674	0.8578
INSURANCE	-0.080064	0.119771	-0.668476	0.5086
APPLYONLINE	0.196111	0.385614	0.508567	0.6145
MANAGEONLINE	-0.039650	0.233450	-0.169843	0.8662
PAYONLINE	-0.004863	0.216761	-0.022434	0.9822
NOTIFICATIONS	0.956855	0.145121	6.593517	0.0000
FINTECHPRODUCTIVITY	0.009556	0.272497	0.035069	0.9722
SATISIFEDMANAGINGONLINE	-0.089433	0.241606	-0.370160	0.7137
STATECOMPANY	0.046345	0.091959	0.503969	0.6177

R-squared	0.691389	Mean dependent var	0.837209
Adjusted R-squared	0.594948	S.D. dependent var	0.373544
S.E. of regression	0.237737	Akaike info criterion	0.180860
Sum squared resid	1.808604	Schwarz criterion	0.631400
Log likelihood	7.111511	Hannan-Quinn criter.	0.347005
Durbin-Watson stat	3.625472		

Another regression analysis was done with fewer variables for interaction. Could not run more as multicollinearity was detected if interaction was done for all. So the variables used were apply online, manage online, and pay online with interaction with the characteristics of a state company. So it means if the data is to apply online through a state company, or manage online from service by a state company. What this does is it will filter out the responses of those using state company service and have opinions on that. In that again only notification is significant with p values less than 5 percent.

Dependent Variable: DVSATISFIEDFINTECHSERVICE
Method: Least Squares
Date: 09/29/24 Time: 12:30
Sample (adjusted): 1 101
Included observations: 48 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
APPLYONLINE*STATECOMPANY	0.040000	0.832827	0.048029	0.9619
MANAGEONLINE*STATECOMPANY	3.38E-15	0.638749	5.30E-15	1.0000
PAYONLINE*STATECOMPANY	-0.040000	0.594643	-0.067267	0.9467
NOTIFICATIONS*STATECOMPANY	0.960000	0.285657	3.360672	0.0016

R-squared	-1.045812	Mean dependent var	0.812500
Adjusted R-squared	-1.185299	S.D. dependent var	0.394443
S.E. of regression	0.583095	Akaike info criterion	1.838723
Sum squared resid	14.96000	Schwarz criterion	1.994656
Log likelihood	-40.12934	Hannan-Quinn criter.	1.897650
Durbin-Watson stat	1.179856		

NOTIFICATIONS* STATECOMPANY

This interaction term has a coefficient of 0.96 and a significant p-value of 0.0016. The positive coefficient suggests that notifications significantly enhance satisfaction for customers using state companies, indicating that the impact of notifications on experience is particularly strong in this context.

THE SUMMARY OF HYPOTHESIS TESTING

The hypotheses of this study were based on the relationship between the independent variables of fintech based solutions and channels and tools.

H: There is no significant relationship between customer experience and Fintech based solutions, channels and tools in the insurance sector of the Maldives.

As shown in the regression analysis, the significant p-value of 0.0016 shows that solutions and channels and tools have a strong impact. Therefore, this result rejects the null hypothesis.

DISCUSSION AND IMPLICATIONS

SUMMARY

This research attempts to examine the customer experience of insurance customers in the Maldives. The results of this research can be beneficial to insurance companies as it provides evidence to help them understand the link between their products and customer experience in the Maldives. Due to the geographical nature of the Maldives, increased digitalisation in finance sectors will benefit most, if not all customers. Research into customer experience of Fintech tools in the insurance sector in the Maldives has not been widely done, and as such this paper can help to increase the body of knowledge.

This survey was distributed to 200 people, and received 101 responses. Surveys suffer from issues such as a low response rate (Ritter and Sue 2007). And while the use of online forms have helped maintain the anonymity of the respondents, it may also facilitate the careless filling of surveys without a clear understanding of the questions.

However, this research was only conducted into Allied Insurance, a state owned insurance company with a digital platform for their customers. As such, this research will not apply to institutions that do not fit this criteria.

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PAPER – 17

BRIDGING THE GAPS BETWEEN HUMAN INTELLIGENCE AND ARTIFICIAL INTELLIGENCE IN THE FIELD OF MENTAL HEALTH CARE AND SERVICES

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INTRODUCTION

The term 'mental health' has gained its recent importance during the covid and in the post-covid period. Mental health is not a mere notion or just a matter of simple discussion, rather keeping it up is a practice and needs regular interventions. It is indeed crucial for the psychological well-being of the individuals and undoubtedly requires a balanced emotional health to sustain its stability. Thus mental health care is nothing but a good number of services and practices dedicated in supporting the mental health of individuals.

Mental health care services include interventions in psychological conditions like depression, anxiety, phobia, schizophrenia etc. Through proper diagnosis the treatment and prevention of the psychological conditions can be addressed. It needs therapeutic interventions, medications, lifestyle management etc. to make the process an effective one. A dedicated team of professionals including psychologists, psychiatrists, neurologists, counsellors, therapists and social workers are involved in providing the mental health care to the persons in need.

Mental health care and services require a wide range of planned actions to cater to the needs of the individuals and also to promote their emotional well-being. The therapeutic interventions in dealing with mental health issues include individual, group and family therapy. In severe cases where medications are required, diagnosis of the problem and associated medications are prescribed. To intervene in crisis there exist crisis intervention programmes like text services, crisis centres or hotline numbers to communicate upon. Community programmes and support groups work to address mass issues like treatment of addiction or a similar patterned psycho-social issue.

Access to mental health care is vital for early intervention and recovery, and it helps individuals manage their conditions, improve their quality of life, and achieve personal and professional goals. Promoting mental health care also involves reducing stigma, increasing public awareness, and ensuring that mental health services are accessible and affordable for everyone. By addressing mental health proactively and compassionately, we can support individuals in leading fulfilling and balanced lives.

To promote mental health individuals must have access to a support system like friends, family or a community organisation dedicated to work with mental health issues. Self-care practices help in reducing stress and in keeping the good mental health parameters high. But events in life are unpredictable and so is the state of people's mind. Therefore there is need of immediate mental health services both offline and online to seek assistance to deal with the problems before they get worse. Psychological well-being is intertwined with physical well-being of any individual which leads to holistic well-being of the person concerned.

Thus in practical scenario when reaching out any mental health professional is not viable throughout the day and night, then there must be scopes to seek immediate help from someone. But many individuals prefer unanimous ways to seek help and not to disclose or discuss personal issues with known ones in life. In considering the privacy of the individuals a few dedicated mental health apps are providing services 24*7 to the persons in need of it (Minerva and Giubilini, 2023). These apps are AI generated and maintain a structured system to address the queries.

These mental health apps provide various tools and resources to help individuals in supporting their psychological well-being. The common structures, components and functionalities found in these apps are as follows:

a) **CHAT**
   Most of the therapy apps offer a real time chat features that connects the individuals with licensed therapists or counsellors.

b) **MOOD TRACKER**
   Some of the apps have mood tracking features where individuals can express their concerns and track down their mood throughout the day. This enables an individual in identifying their mood patterns and in understanding the triggering points for their emotional instabilities to work with to attain emotional well-being.

c) **FIXING TARGETS AND TRACKING PROGRESS**
   Individuals can fix their targets to manage their mental health issues like anger, anxiety, stress, depression etc. and also can track their progress eventually.

d) **SELF-HELP STRATEGIES**
   These apps provide interactive exercises like mindfulness exercises, relaxation techniques, improved sleep habit, healthy lifestyle management etc. to help the individuals in managing mental health issues independently.

e) **PERSONALIZED RECOMMENDATIONS**
   According to the need of the individuals reaching out for help these apps may provide personalised recommendations in terms of person specific self-help strategies like coping strategies, exercises, therapies and follow-up routines.

f) **COGNITIVE BEHAVIOUR THERAPY (CBT)**
   CBT mainly is used to treat behavioural issues through tools and techniques like thought challenging exercises

g) **COMMUNITY SUPPORT**
   Some apps help in building peer networks or forums where people can connect with others who have similar kind of mental health issues where they can freely share their experiences and also can offer mutual trust and support.

h) **ACCESSIBILITY AND CONVENIENCE**
   Apps are always accessible which allow individuals to address their mental health problems at the earliest and in the need of emergency attention like suicidal thoughts.

i) **SECURITY AND PRIVACY**
   Trusted apps prioritise privacy of users and data security. These apps use encryption and ensure compliance with important regulations.

There are several AI-driven apps designed to provide psychological counselling and support, such as:

a) **WOEBOT**
   This AI driven app delivers cognitive behaviour therapy (CBT) through chat interactions. Woebot initiates personalised conversations to help the persons in need of mental health support in managing their emotions and in improving their psychological well-being.

b) **WYSA**
   Wysa is a AI-powered chatbot that uses techniques from cognitive behaviour therapy (CBT), dialectical behaviour therapy (DBT), and mindfulness. Wysa is a mood tracking app and also it provides emotional support and self-care exercises to help individuals to deal with their mental health issues independently.

c) **TALKSPACE**
   sThe primary focus of Talkspace is to use its AI to match and connect its users with licensed therapists and to support the therapy process.

d) YOUPER

Youper provides AI driven personalised conversations based on cognitive behavioural strategies which enables its users to track their mood, to manage anxiety and to attain improved emotional well-being through chat interactions.

e) MOODPATH

Moodpath uses its AI in screening its users for symptoms of depression. Based on the screening it assists its users through a 14 days assessment and provides personalized recommendations accordingly.

f) CALM

Calm is an AI based app that is designed to reduce stress, to improve sleep and to enhance mental well-being through guided meditation, sleep stories, breathing exercise and music.

Beside the above mentioned apps there are many other online platforms that are working with the support of artificial intelligence to cater the mental health needs of the individuals. All these apps can be beneficial for many persons in need of mental health support. But there exists dilemma regarding its usability, sustainability and also regarding its efficiency or configuration in treating severe mental health conditions like suicidal ideation, schizophrenia, acute depression, acute anxiety, phobia, bipolar disorders etc. as they lack face to face human contacts (Higgins et al., 2023) which is a key component in addressing and in treating mental health issues.

Considering this argument the present article is aimed at finding the drawbacks and possibilities of the AI apps in addressing mental health issues, and in providing therapy and solutions to the psychological problems of individuals and also in suggesting reasonable ways to bridge the gaps between human intelligence and artificial intelligence in promoting mental health and well-being.

METHOD

NATURE OF STUDY

The research has used qualitative research method.

TECHNIQUE AND ANALYSIS

The source of the study has a primary intervention and experience in accessing the AI apps and also in terms of collecting information and feedbacks regarding the apps, it is of secondary in nature. Theoretical framework along with observational analysis method through empirical research method is used to discuss the argument.

DISCUSSION

Artificial intelligence surpassing human intelligence is not only an emerging matter of debate but also an important area of research. By using artificial intelligence various specific tasks of impressive capabilities and result were made possible to demonstrate like playing games, driving cars and recognizing patterns. AI can perform human intellectual tasks, it can process vast amount of data (Minerva and Giubilini, 2023), but what it lacks is human like understanding, common sense in reasoning and creativity. AI has advanced rapidly in its specialized domains and the progress is continuous.

Artificial intelligence and human intelligence share a fascinating relationship despite their prominent differences. The differences actually are proof of their individual uniqueness and capabilities. While artificial intelligence can process vast amount of data, recognize patterns and perform tasks with precision and speed (Minerva and Giubilini, 2023), human intelligence excels at empathy, creativity, complex reasoning and decision making. Artificial intelligence (AI) and human intelligence (HI) differ in several ways:

a) ORIGIN
AI is a human creation through programming and algorithms, but HI is a natural result of human biology and evolution.

b) LEARNING
AI's learning mechanism includes data and programming, but HI's learning mechanism is vast like life experiences, environment, social interaction, day to day activities etc.

c) PROCESSING
Data analysis and computation are key components in artificial intelligence's information processing. But human intelligences are equipped with cognitive functions and neural networks to process any information.

d) REASONING
Reasoning follows strict rules and decision trees in case of artificial intelligence. Intuitions, creativity, emotions, learning from past experiences, observational analysis of situations are the key components in reasoning of human intelligence.

e) CREATIVITY
Artificial intelligence's creativity has significant limitations to its programming and data processing. But human intelligence surpasses any boundaries in terms of creativity as it can imagine, innovate and also can push its limits in unique ways.

f) UNDERSTANDING CONTEXTS
Artificial intelligence struggles with understanding context and nuances. But human intelligence excels in picking up cues and in understanding complex situations.

g) COMMON SENSE
This component is a serious lack in artificial intelligence as it cannot acquire real life experiences. But human intelligence is a product of real life experiences and practical knowledge that enhances its ability in developing common sense.

h) SELF-AWARENESS
Self awareness is a human characteristic and undoubtedly human intelligence possesses this sense of individuality and consciousness, whereas artificial intelligence is not at all self aware.

i) EMOTIONS AND EMPATHY
These two most important components are dominant in human intelligence for its deeply rooted emotional and social experiences. But in artificial intelligence emotions and empathy are hard to be found.

j) ETHICS AND MORALITY
Artificial intelligence has its programmed ethical guidelines which it abides by in any situation. Human intelligence deals with complex ideations of ethics and morality which creates dilemmas in its operation.

In connection with understanding the gross and minute differences between artificial intelligence and human intelligence, some questions remain active regarding the efficiency of the AI apps in treating mental health

issues where face to face human contact has been proven to be more effective than any other medium of treatment. It has been noted that the AI apps and technologies specifically designed for mental health support lack the required capability to treat severe mental health disorders like schizophrenia, bipolar disorder etc. on its own because of the complexity of the psychiatric disorders that involve a range of difficult symptoms, like for schizophrenia the symptoms ranges from hallucination to delusion and for bipolar disorder the symptoms vary from disorganized thinking to impaired social functioning and many other complicated symptoms may appear depending on individual clients. Treating these kinds of mental health disorders require a combination of treatments which often includes hospitalization, or intensive community support and of course prescribed medications. For an artificial intelligence based app performing these complex tasks is quite difficult and impossible as it requires individualized treatment plans for each client.

AI apps in mental health care and support work through a powerful data analysis based structured interactive mechanism like the cognitive behaviour therapy and it thus lacks the nuanced understanding and human empathy which is a primary criterion in treating severe mental health illnesses. AI driven apps can provide coping strategies to their clients through assistive symptom monitoring, but they certainly cannot simulate or replace the efficacy of trained mental health professionals in treating or in providing comprehensive mental health care.

Treating any severe mental health condition involves complex ethical considerations, safety protocols, rules and legal regulations. AI based apps are misfit in this criteria where they need to be equipped with crisis intervention strategies, and with higher level of accountability in monitoring and in applying any intervention strategy to deal with severe mental health conditions.

Actually artificial intelligence is designed to augment and assist human intelligence and not to replace or dominate it. The collaborative approach between artificial intelligence and human intelligence can prove to be beneficial in terms of new achievements and innovations and the combination of both if possible to ascertain, can create wonders in accomplishing the unattained spectrum of treating severe mental health conditions.

IMPLICATION

Human psychology plays an intriguing role in formulation of artificial intelligence that forms their unique interconnectedness. Recent advances in both the fields of human psychology and artificial intelligence confirm the possibilities of incorporating more humane components in programming artificial intelligence.

Artificial intelligence aims to replicate or simulate human cognitive functions in learning (Singh, 2023), reasoning, problem solving, and decision making. Therefore if AI system developers learn and understand human psychology, they can create an effective human-like AI system for a better performance in dealing with human life issues.

AI systems, particularly those used in fields like machine learning, often rely on data that reflects human behaviour. By studying psychological principles, developers can better understand how to model human decision-making and social interactions.

As AI systems often interact with humans through chatbots or virtual agents or voice assistants, knowledge of human psychology helps in designing the interfaces to be more accurate. The design of interfaces and interactions of artificial intelligence rely on psychological principles. It enables AI in understanding cognitive load, perception, and emotional responses. These humane components support the AI systems to become more user-friendly and intuitive.

In recent days some AI systems are being developed to recognize and respond to human emotions. These systems are drawing on their response mechanisms following psychological theories of emotion and empathy. This can significantly enhance human-computer interaction, making artificial intelligence more relatable and effective in areas like mental health support.

As the interconnectedness of artificial intelligence and human intelligence is rich and multifaceted in terms of various factors, that must resonate in the field of mental health care and services. The interactive improvements between the two can be analyzed following the criteria:

I. Learning mechanisms where AI systems can analyze the process of human learning to improve their algorithms and human educators can use AI insights to enhance their teaching methods.
II. AI based mental health apps ask for feedback from its human users to refine AI models more effectively in real world applications. Conversely with these more sophisticated AI systems, they can provide insights to enhance human decision making, thus creating a loop of feedback based improvement.
III. The realm of human intelligence can be expanded through the help of tools powered by AIs in predictive analytics and natural language processing (Minerva and Giubilini, 2023) which enhance human cognitive abilities.
IV. Through AI algorithms the apps model human behaviour especially in fields like reinforcement learning, for instance, concepts like reward and punishment, which are foundational in behaviourism in helping them to learn from its environment.
V. Human-centred designs of AI interfaces are guided by psychological principles that help them in understanding how human beings perceive information, their attention spans and emotional responses.
VI. AI based mental health apps if are equipped with the emotional design to recognize and respond to user emotions, can create more engaging interactions with the clients empathically.
VII. Based on social media algorithms AI driven interventions in mental health apps utilizes psychological theories of motivation and insights to encourage positive lifestyle modifications.
VIII. The synergy between human intuition and AI's analytical mechanisms are essential in improved decision making tasks like by understanding factors like transparency and reliability that foster trust on the apps (Higgins et al. 2023) is crucial for successful AI integration into real life practice.

Based on the analysis of human intelligence and artificial intelligence and their interconnectedness, some suggestions can be proposed regarding the required updates in operating system of the mental health apps:

- ✓ As AIs serve as an augmentative tool, it can assist medical professionals in analysing medical assessments, tests, more quickly and accurately.
- ✓ For Mental health care AI based apps can be equipped with programming of psychological assessment tools so that they can collect history of illnesses from the clients (Talati, 2023), analyse the symptoms and can help in diagnosis of the disorder or problem as classified in DSM-5 or ICD-11.
- ✓ This will boost the treatment procedure not only by time but also by accuracy.
- ✓ Following the diagnosis the apps can provide the clients with details of mental health care professionals specific to individual client's requirement where they can visit physically for further treatments.
- ✓ The mental health care professionals can prescribe or can suggest therapeutic interventions through the apps specifically designed for it (Talati, 2023) or through physical visits to the therapists, depending on the client's flexibility and need.
- ✓ The American Psychiatric Association (APA) has come up with a digital psychiatric task force for the purpose of evaluating and monitoring AI based apps for their efficacy, tolerance, safety and potential to provide mental health care (Singh, 2023) and support.

Thus the gaps between artificial intelligence and human intelligence in treating mental health issues (Graham et al. 2020) can be resolved in a complimentary way where AI and HI will enhance each other's potential keeping the ethical practices in consideration to provide a well-equipped multifaceted mental health care and services to the persons in need.

CONCLUSION

In mental health care and services artificial intelligence technologies can simulate and complement traditional treatment methods like supportive behaviour therapy sessions, psycho-education, tracking symptoms and progresses etc. These are augmentative in nature and must be availed by the clients with full knowledge of their limitations.

That is why the interplay between human intelligence and artificial intelligence is essential to create a fully functional system that would resonate with human users. The interconnectedness of artificial intelligence and human intelligence is dynamic in nature and is continuously evolving. Their collaboration and influence on each other requires in depth understanding to harness their combined potential in responsible and effective application enhancing the way technology serves human society.

The collaboration between artificial intelligence and human intelligence promises to unlock newer possibilities in serving clients with mental health issues and in providing mental health care and support services to its full potential with an improved and enhanced emotional intelligence based system (Graham et al.,2020) where human touch will also be included in the treatment procedures. But the entire mechanism requires careful consideration of ethical and societal implications before taking decisive roles in the field of mental health care and services as it is not a matter of only treatment of clients but also a matter of procuring personal and sensitive data which certainly has its risks (Minerva and Giubilini, 2023).

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PAPER – 18

PERCEPTION OF MOBILE LEARNING AMONG SENIOR SECONDARY STUDENTS, THEIR PARENTS, AND TEACHERS DURING THE PANDEMIC ERA

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CONCEPTUAL BACKGROUND

The COVID-19 pandemic has prompted an unprecedented shift in education, compelling institutions worldwide to rapidly adopt remote learning strategies to establish continuity of teaching and learning. In this context, mobile learning has emerged as a critical tool for delivering educational content and fostering student engagement amidst the challenges posed by the pandemic (Biswas et al., 2020). The widespread use of mobile devices, coupled with their portability and connectivity, has made them indispensable tools for accessing educational resources, communicating with peers and instructors, and participating in virtual learning environments. Amidst this transformative landscape, understanding the perception of mobile learning during COVID-19 becomes imperative (García-Martínez et al., 2019). Perception encompasses individuals' attitudes, beliefs, and experiences regarding using mobile devices/tools for learning purposes in the context of the pandemic. Exploring these perceptions provides valuable insights into the efficacy, acceptance, and challenges associated with the widespread adoption of mobile learning strategies during this unprecedented crisis (Carrillo & Flores, 2020).

The problem statement arises from the need to address the diverse perceptions and experiences of students, educators, parents, and other stakeholders regarding mobile learning during COVID-19 (Brown & Mbati, 2015). While some may view mobile learning as a lifeline enabling continued access to education amidst lockdowns and disruptions, others may encounter barriers related to digital access, technological literacy, or socio-economic disparities (Šramová, 2023). Understanding these perceptions is essential for identifying strategies to optimize the effectiveness and inclusivity of mobile learning initiatives during the pandemic and beyond.

The significance of this research lies in its potential to inform responsive educational practices and policies tailored to the unique challenges and opportunities presented by COVID-19. By examining perception towards mobile learning during the pandemic, this study contributes to the broader discourse on emergency remote learning, educational resilience, and digital equity. Insights derived from this research can guide educators, policymakers, and technology developers in designing and implementing mobile learning solutions that address learners' diverse needs and realities in crisis contexts.

The study seeks to explore and analyze perceptions towards mobile learning during COVID-19, elucidating its implications for educational practice and policy in times of crisis. Through rigorous inquiry and thoughtful interpretation, this research aims to facilitate evidence-based decision-making and innovative approaches to leveraging mobile technologies for equitable and resilient education delivery in the face of unprecedented challenges.

LITERATURE REVIEW

García-Martínez et al. (2019) highlighted that mobile learning has gained significant importance during the COVID-19 pandemic, enhancing student engagement and learning outcomes while adapting to remote education requirements. Studies emphasize the positive impact of mobile technologies on student motivation, creativity, and problem-solving. Adopting e-learning methods, including mobile learning, has been crucial in higher education institutions to ensure continuity in education during the pandemic. Factors such as teachers' technological knowledge, student involvement, and infrastructure play vital roles in the success of mobile learning initiatives (Gupta et al., 2021). Integrating mobile technologies in education has

shown promise in overcoming challenges and providing interactive and personalized learning experiences, especially during the COVID-19 crisis. Overall, mobile learning has emerged as a crucial tool in ensuring the continuity and effectiveness of education during the challenging times of the COVID-19 pandemic (Habibi et al. 2023).

The emergence of the COVID-19 pandemic has profoundly impacted various aspects of our lives, including the realm of education, necessitating the rapid adoption of alternative learning modalities (Brown & Mbati, 2015). One of the key innovations that has gained significant traction during this period is mobile learning (m-learning). The extensive use of smartphones and tablets has enabled students (Ly & Kearney, 2023). The "m-learning" approach has proven valuable in maintaining educational continuity during the pandemic (Lebedeva et al., 2023). As noted by researchers, "the Internet, smartphone, or tablet has become a beneficial tool to support distance learning, especially for m-LMS"(Šramová, 2023).

However, the transition to mobile learning has been without challenges. Educators and students alike have had to navigate the complexities of remote learning, adapting to new technologies and the lack of face-to-face interaction (Šramová, 2023). As highlighted in the research, "Even though online learning has been available for more than two decades and also became a topic of academic discussion, it was up until this pandemic forced the overwhelming majority of educational institutions to adopt it"(Šramová, 2023), focus on the challenges; the pandemic has also presented opportunities for innovation and growth in mobile learning. (Harris & Jones, 2022) As educational leaders have been forced to "connect with their colleagues and stakeholders remotely, to lead differently in the crisis and above all, to ensure learning and teaching continued"(Harris & Jones, 2022), new approaches to teaching and learning have emerged.

RESEARCH DESIGN

This study employed a cross-sectional survey research design to investigate normative perceptions among parents, senior secondary students, and teachers in the schools of Budaun district, Uttar Pradesh, India. A quantitative approach was utilized to gather data through a structured questionnaire.

OBJECTIVES OF THE STUDY

The study aims to determine the perception towards mobile learning of senior secondary students, teachers, and parents in the pandemic era.

PARTICIPANTS

The sample consisted of 300 participants, including 125 parents, 125 senior secondary students, and 50 teachers. Participants were selected from various schools within the Budaun district. A purposive sampling technique was employed to ensure representation from each participant group. Schools across the Budaun district were selected purposively to recruit participants. Prior permissions were obtained from school authorities and relevant stakeholders. Informed consent was obtained from all participants, ensuring confidentiality and voluntary participation.

INSTRUMENT

The tool used for this study was a structured questionnaire consisting of 45 items, distributed evenly among the three participant groups. All items were measured on a five-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree." Specifically, there were 15 items for students, 15 for parents, and 15 for teachers. Trained researchers administered the questionnaire to the participants during designated sessions at the school premises. Participants were instructed on how to complete the questionnaire and assured of the anonymity and confidentiality of their responses. Data collection took place over a specified period, with researchers overseeing the process to ensure the completeness and accuracy of responses.

RESULTS AND DISCUSSION

Table 1 shows that the study involved a total of 300 participants, categorized into three groups: students (N = 125), parents (N = 125), and teachers (N = 50). The mean score for students was 140.13, with a Standard Deviation (SD) of 7.167. Parents had a mean score of 139.53, with a SD of 6.664. The mean score for teachers was 139.58, with a SD of 7.120. The overall mean score across all participants was 139.79, with a SD of 6.936. These results provide an overview of the responses obtained from each participant group, indicating the central tendency and variability in their perceptions as measured by the questionnaire. Further inferential analyses can be conducted to explore any significant differences or similarities in perceptions among the different groups.

TABLE 1: DESCRIPTIVE STATISTICS OF RESPONDENTS

RESPONDENTS	N	MEAN (M)	STD. DEVIATION (SD)
Students	125	140.13	7.167
Parents	125	139.53	6.664
Teachers	50	139.58	7.120
Total	300	139.79	6.936

Table 2 indicates that the student parents' mother and father t-value of -0.011 indicates a slight difference between male and female parents' perceptions of mobile learning. The p-value of 0.422 is well above the conventional significance threshold of 0.05, indicating that the observed difference is not statistically significant. Therefore, we conclude that male and female parents have no significant difference in their perception of mobile learning. Parents' locality, rural and urban, has a t-value of -0.71, which suggests a slight difference in the perceptions of mobile learning between rural and urban parents. The p-value of 0.494 exceeds the standard significance level of 0.05, indicating that the observed difference is not statistically significant. Thus, the data suggest no significant difference in how parents from rural and urban areas perceive mobile learning. Based on the parents' family, nuclear and joint, the t-value of -1.796 indicates a somewhat more significant difference between the perceptions of parents from nuclear and joint families compared to the previous comparisons. However, the p-value of 0.263 is still above the 0.05 threshold, indicating that this difference is not statistically significant either. Therefore, we conclude that the type of family does not significantly influence parents' perceptions of mobile learning.

The results suggest that their gender and locality do not significantly influence parents' perceptions of mobile learning or the type of family structure they belong to. This could imply that factors other than gender, locality, and family type may substantially shape parents' attitudes toward mobile learning.

TABLE 2: PARENTS' PERCEPTION OF MOBILE LEARNING IS BASED ON GENDER, LOCALITY, AND TYPES OF FAMILY.

PARENTS		N	MEAN	SD	T	SIG.
Gender	Male	88	3.101	0.145	-0.011	0.422
	Female	37	3.101	0.145		
Locality	Rural	67	3.098	0.153	-0.271	0.494
	Urban	58	3.105	0.142		
Type of Family	Nuclear	64	3.072	0.144	-0.179	0.263
	Joint	61	3.162	0.174		

Note: N= Total No. of Sample; SD= Standard Deviation

Table 3 data shows that based on teachers' gender, the t-value of 0.407 suggests a slight difference between male and female teachers' perceptions of mobile learning. However, the p-value of 0.381 is much higher than the common significance threshold of 0.05. This indicates that the observed difference is not statistically significant. Therefore, we conclude that male and female teachers have no significant difference in their perception of mobile learning. Based on the teacher's locality, the t-value of 0.376 indicates a slight difference

in the perceptions of mobile learning between teachers from rural and urban areas. The p-value of 0.034 is below the 0.05 threshold, suggesting this difference is statistically significant. This indicates a significant difference in rural and urban teachers' perceptions of mobile learning.

These results suggest that while gender does not significantly influence teachers' perceptions of mobile learning, the locality (rural vs. urban) does have a significant impact. Urban teachers might perceive mobile learning more favorably due to better access to technological resources and infrastructure than their rural counterparts.

TABLE 3: TEACHERS' PERCEPTION OF MOBILE LEARNING IS BASED ON GENDER AND LOCALITY.

TEACHERS		N	MEAN	SD	T	P
Gender	Male	40	3.106	0.163	0.407	0.381
	Female	10	3.083	0.141		
Locality	Rural	37	3.095	0.141	0.376	0.034
	Urban	13	3.118	0.204		

This research holds significant value in shaping educational practices and policies responsive to the specific challenges and opportunities brought about by COVID-19. The study adds to the ongoing discourse on emergency remote learning, educational resilience, and digital equity by analyzing mobile learning perceptions during the pandemic. The insights gained can assist educators, policymakers, and technology developers in creating and implementing mobile learning solutions that effectively address learners' varied needs and circumstances in crises.

CONCLUSIONS

Mobile learning proved crucial during the pandemic, ensuring continuity in education despite physical school closures. It allowed students and teachers to connect remotely, offering flexibility and accessibility. By leveraging digital tools and resources, mobile learning bridged the education gap, particularly in challenging circumstances, making learning more resilient. The findings of this study reveal that while the type of family does not significantly influence perceptions of mobile learning, and gender does not significantly impact teachers' perceptions, locality plays a critical role. Specifically, the differences between rural and urban areas significantly affect perceptions of mobile learning during the pandemic era. This suggests that accessibility, technological infrastructure, and familiarity with digital tools vary considerably between these regions, influencing how mobile learning is perceived and utilized. In urban areas, where resources and technological know-how are more readily available, mobile learning is more likely to be embraced. In contrast, rural areas may face challenges like poor connectivity and limited device access, leading to less favorable perceptions. These findings underscore the need for targeted interventions that address locality-based disparities to ensure equitable access to mobile learning resources and a more inclusive digital education experience in the post-pandemic world. This research suggests that to enhance mobile learning among students, parents, and teachers, institutions should integrate mobile-friendly digital platforms and apps that support interactive, self-paced learning. Faculty should also receive training to effectively incorporate mobile tools into their teaching, ensuring accessibility and engagement across diverse learning environments.

ETHICAL CONSIDERATIONS

This study adhered to ethical guidelines, ensuring the rights and privacy of participants were respected throughout the research process. Any identifiable information was kept confidential, and the data was used solely for research.

ACKNOWLEDGMENT

Both authors contributed equally to the research and manuscript preparation. We also wish to thank Uzair Ul Hasan, M.Ed. student from the School of Education, Pondicherry University, for his valuable assistance in the data collection process, which was essential to the completion of this study.

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The Conference was a further successful milestone for the series which has been held annually since 2015. Once again, the event provided a platform for a diverse community of researchers, academics, industry experts and internationally renowned guest speakers to interact and grow their knowledge. The conference programme comprised a diverse range of contributions from delegates and speakers across the globe, continuing our tradition of placing the value of research as a social good at the heart of the event. The level of interaction between presenting authors and delegates was gratifying and ensured clarity of discussion around the themes and ideas brought by presenters. The Keynote Speakers provided stimulating and overarching themes that were echoed in presentation sessions both days of the Conference, helping to align the conference content with the objectives set for the event.

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Printed and Published: October 2025

ISBN 978-1-8384729-6-2

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